

City of Morgan Hill

Pump Station Emergency Response Plan

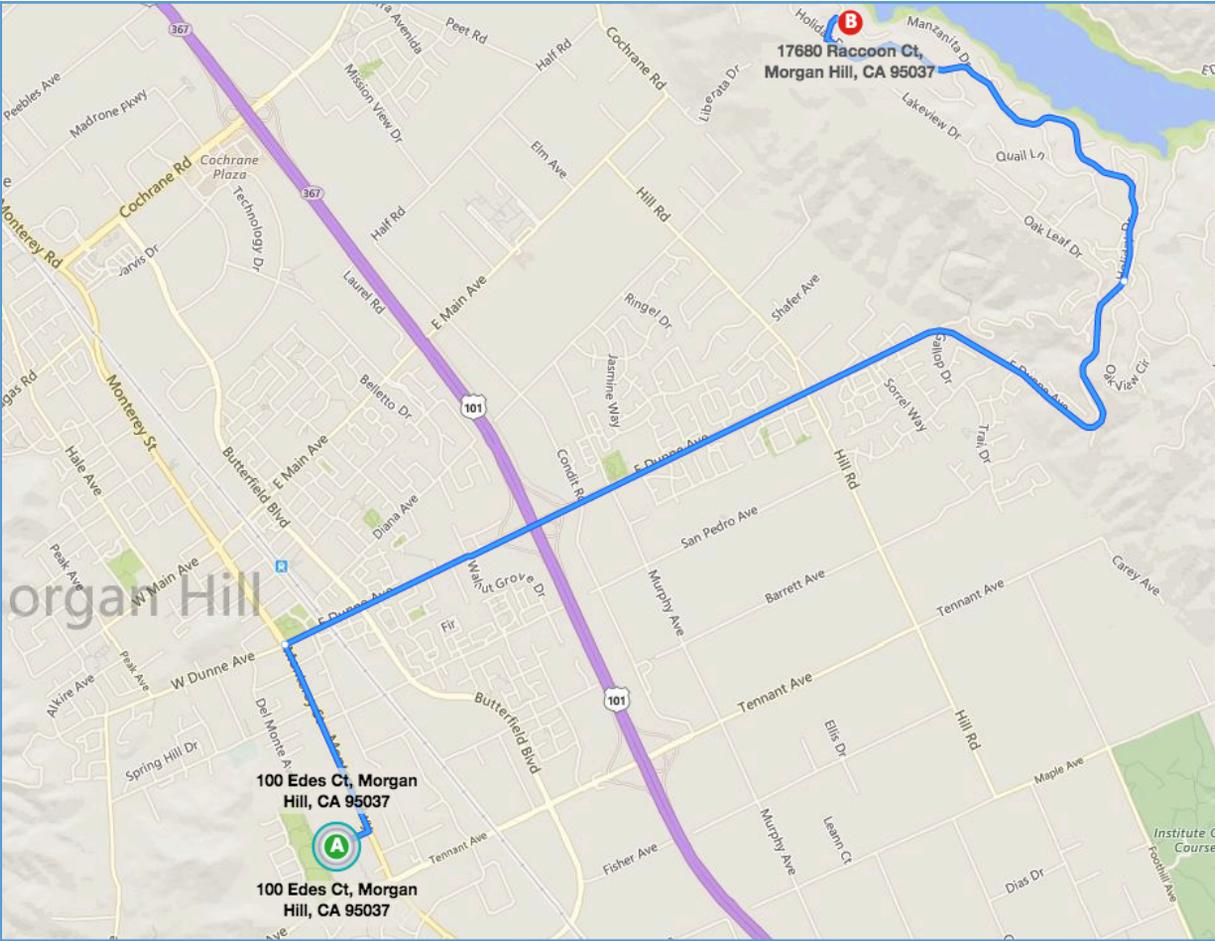


Pump Station PS-A
17670 Raccoon Court

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Pump Station Technical Information

Name	PS-A – 17670 Raccoon Court Pump Station
Address	17670 Raccoon Court, Morgan Hill, CA 95037
Lat., Long.	37.158147, -121.611756
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Turn right on E Dunne Ave., bear left on Holiday Dr. Turn right onto Holiday Ct. Turn right onto Raccoon Ct. Take the second driveway on the left at 17680 Raccoon Ct. Follow the driveway down the hill to the end. The pump station is at the end at the bottom <div style="background-color: yellow; border: 2px solid red; padding: 5px; text-align: center; margin-top: 10px;"> <p>ALERT! Access is tight. Large vehicles & trailers will have trouble getting into/out of the pump station</p> </div>



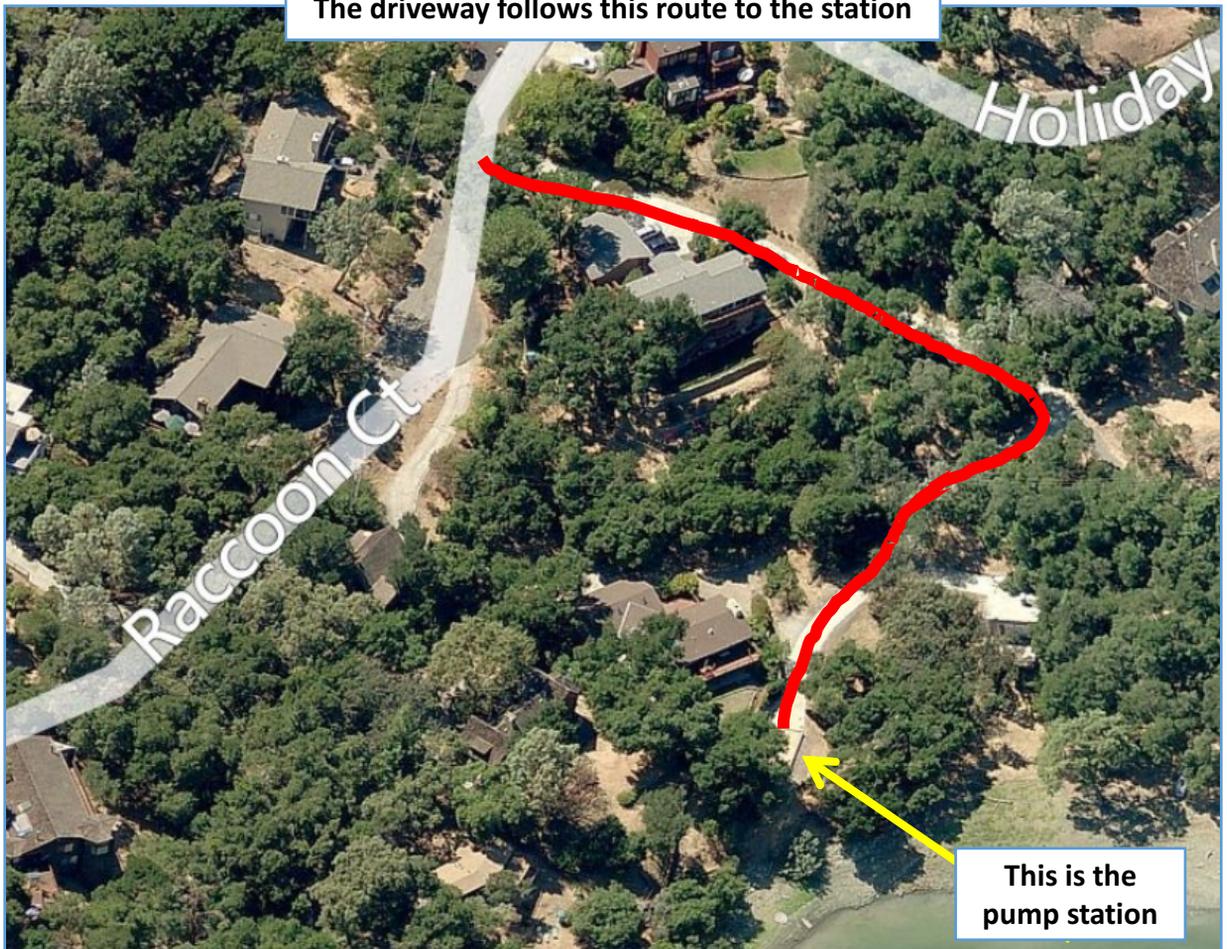
Pump Station Technical Information

This house is 17680 Raccoon Ct.



This is the driveway on Raccoon Ct. that leads to the station

The driveway follows this route to the station



This is the pump station

Pump Station Technical Information

Station Information

Wet well dimensions & capacity	Tank 1: 8' diameter x 11.5' deep; 4,324 gallons Tank 2: 4' diameter x 8' deep; 752 gallons Tank 3: 8' diameter x 10.5' deep; 3,948 gallons Total Capacity: 9,024 gallons
Est. hold time (dry weather)	14 hours
Low point (likely overflow point)	Manhole at pump station (on lower level) Approx. GPS: 37.158174, -121.611817
Upstream pump station(s)	<i>None. Gravity inflow only</i>
Downstream pump station	PS-B, 17558 Holiday Drive
Forcemain Data	4" x 1,602'
Discharge location	37.15706, -121.610362

Pump Capacities

Pump	Motor & Pump	Capacity
#1	Flygt 3153/273, 25hp, 240v 3-phase	329 gpm
#2	Flygt 3153/273, 25hp, 240v 3-phase	329 gpm

Station Power

Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038040
	PG&E Meter #	1008835774
	PG&E Outage Block	50
	Priority	Sewer pump station
Backup Generator	The station is not equipped with a permanently installed backup generator, however it is equipped with a manual transfer switch and a quick connect for a portable generator	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port. however the station may be bypassed by either installing an adapter onto one of the check valves or by running the discharge hose to a downstream manhole.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

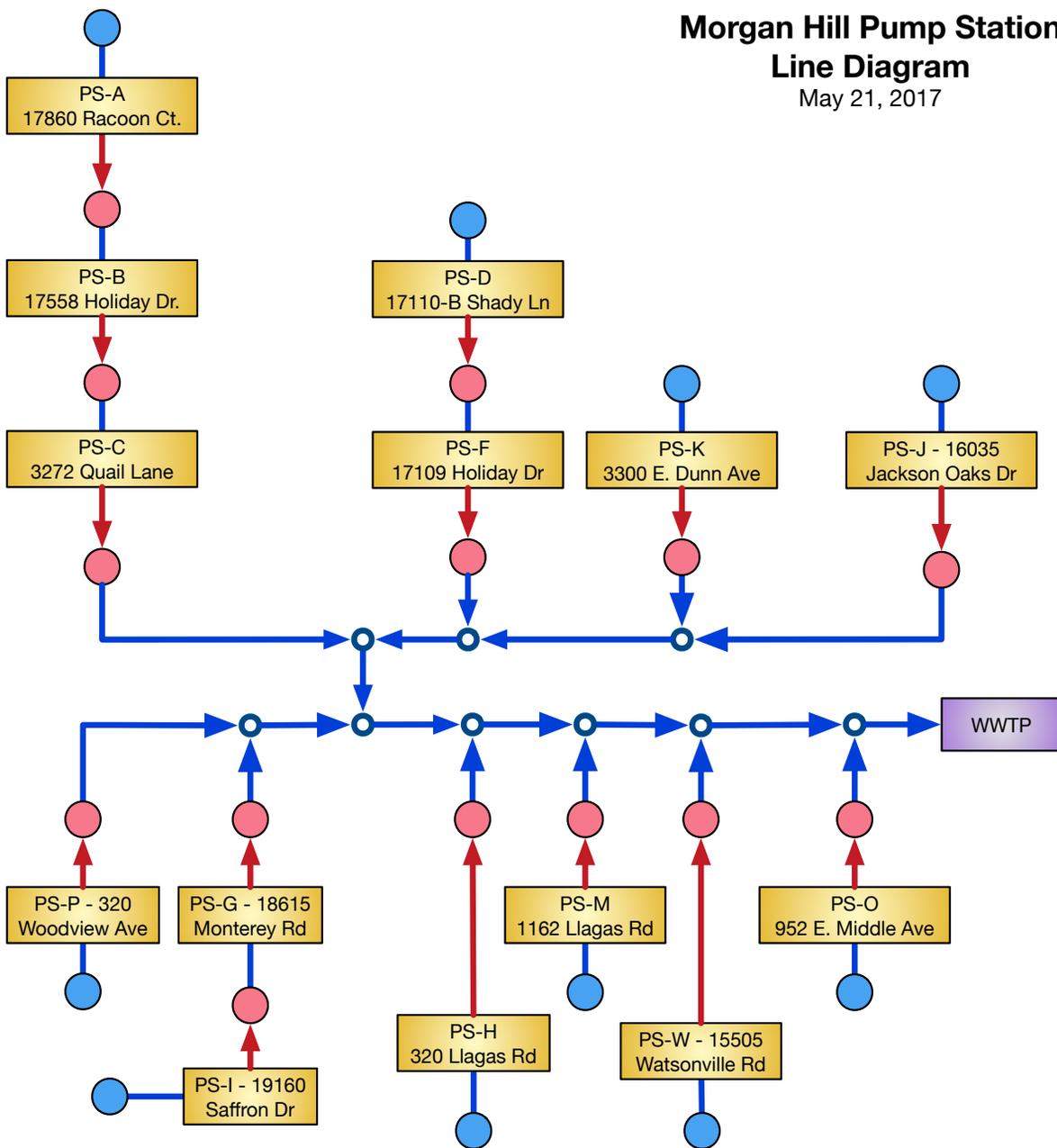
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

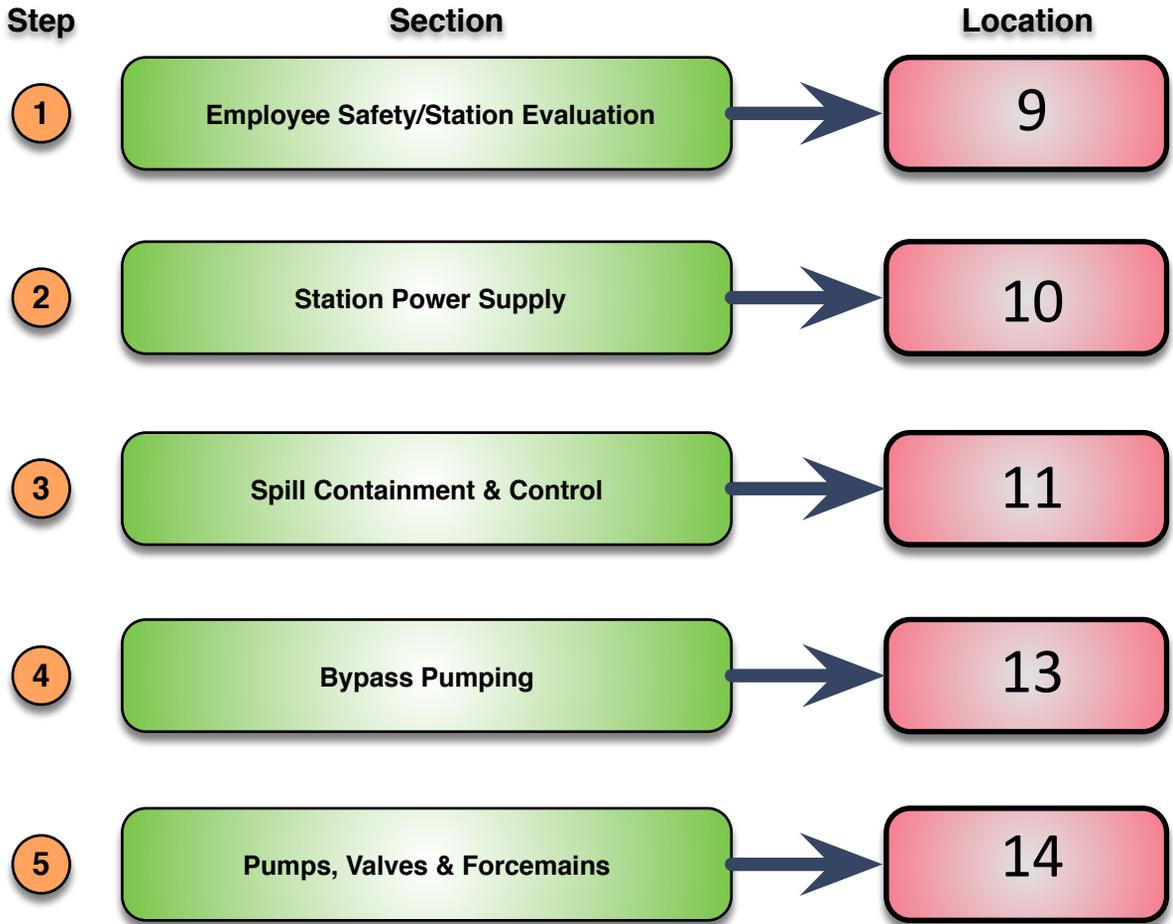
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
Gravity Feed Only	Force main & flow direction
Force Main Discharge	Gravity line & flow direction
Force Main Junction	PS Morgan Hill managed PS
Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide **Decision Tree Index**

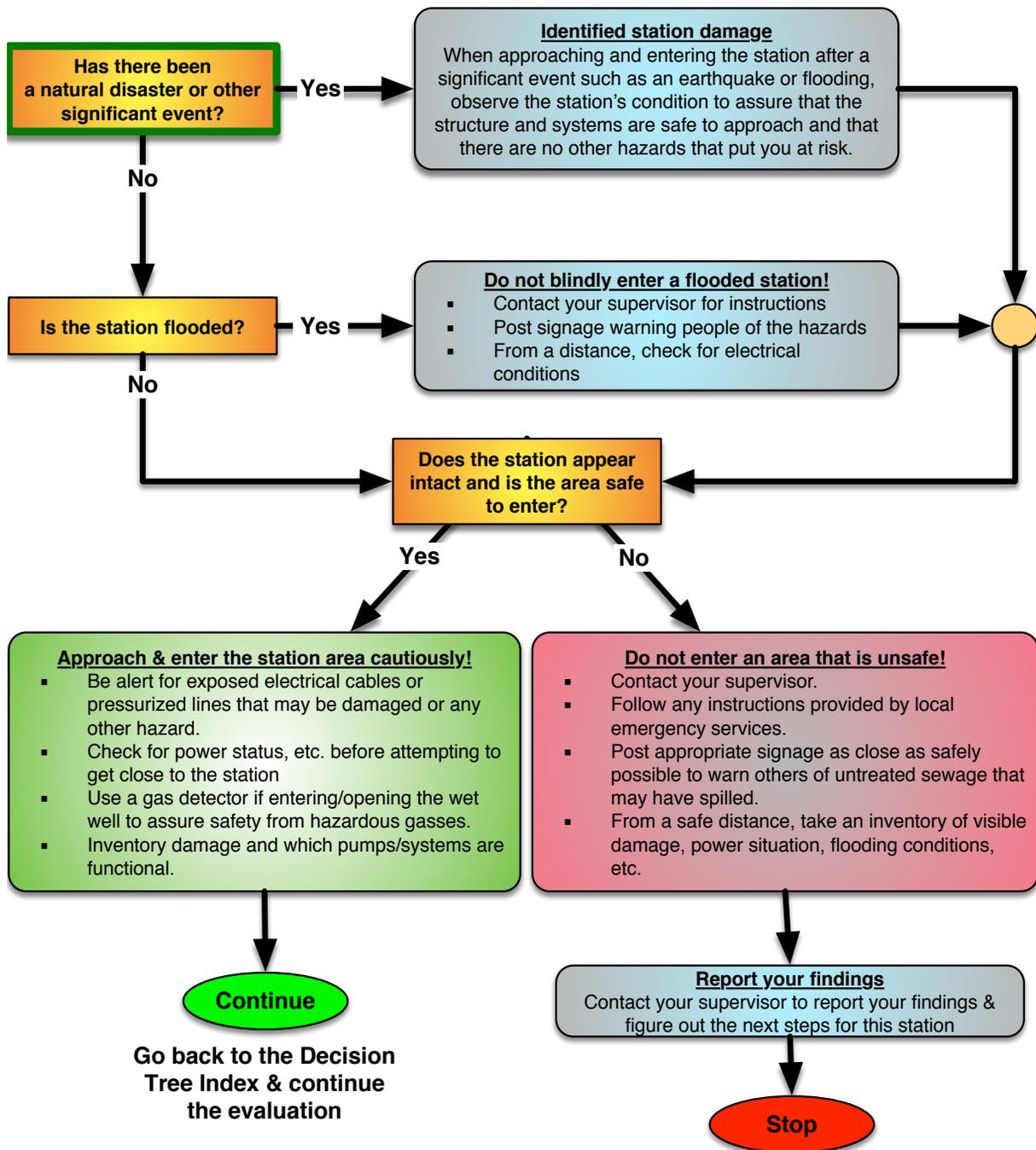


LEGEND

<p> Initial Question</p> <p> Page-To-Page Link</p> <p> Sequence Merge (Watch arrows for flow direction)</p>	<p> Decision Point</p> <p> Task/Direction Item</p>
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Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

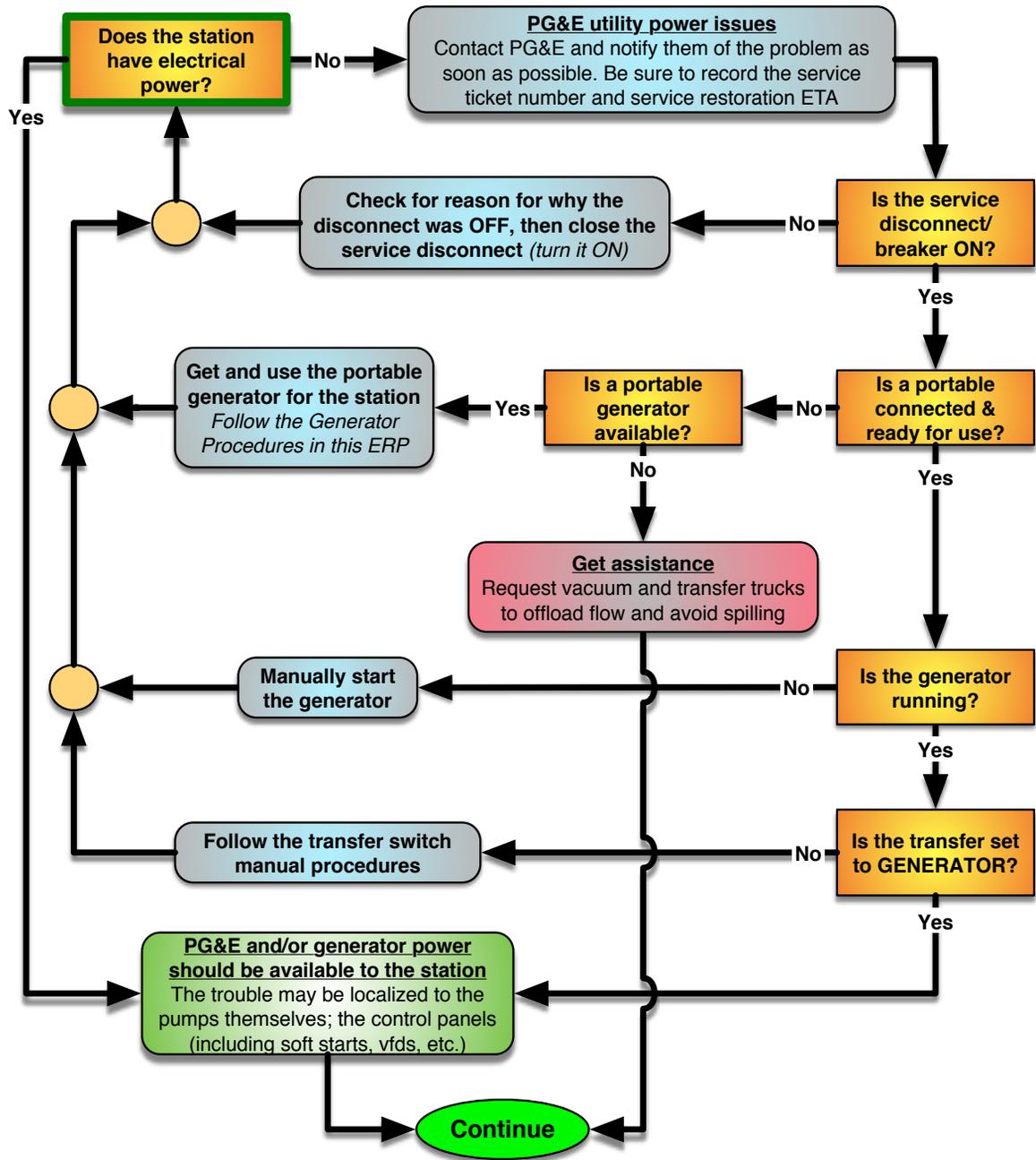


LEGEND

- Initial Question
- Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply



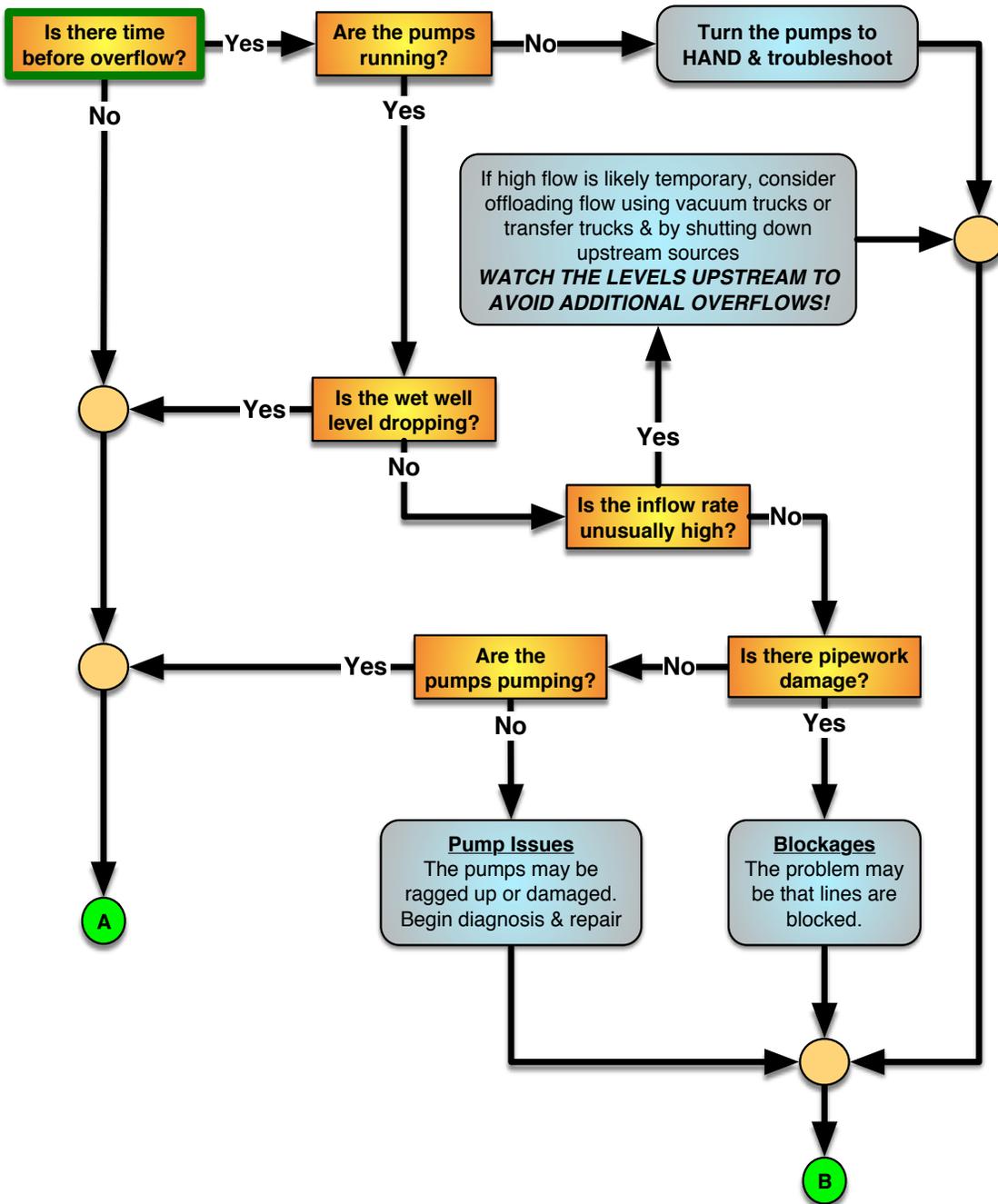
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

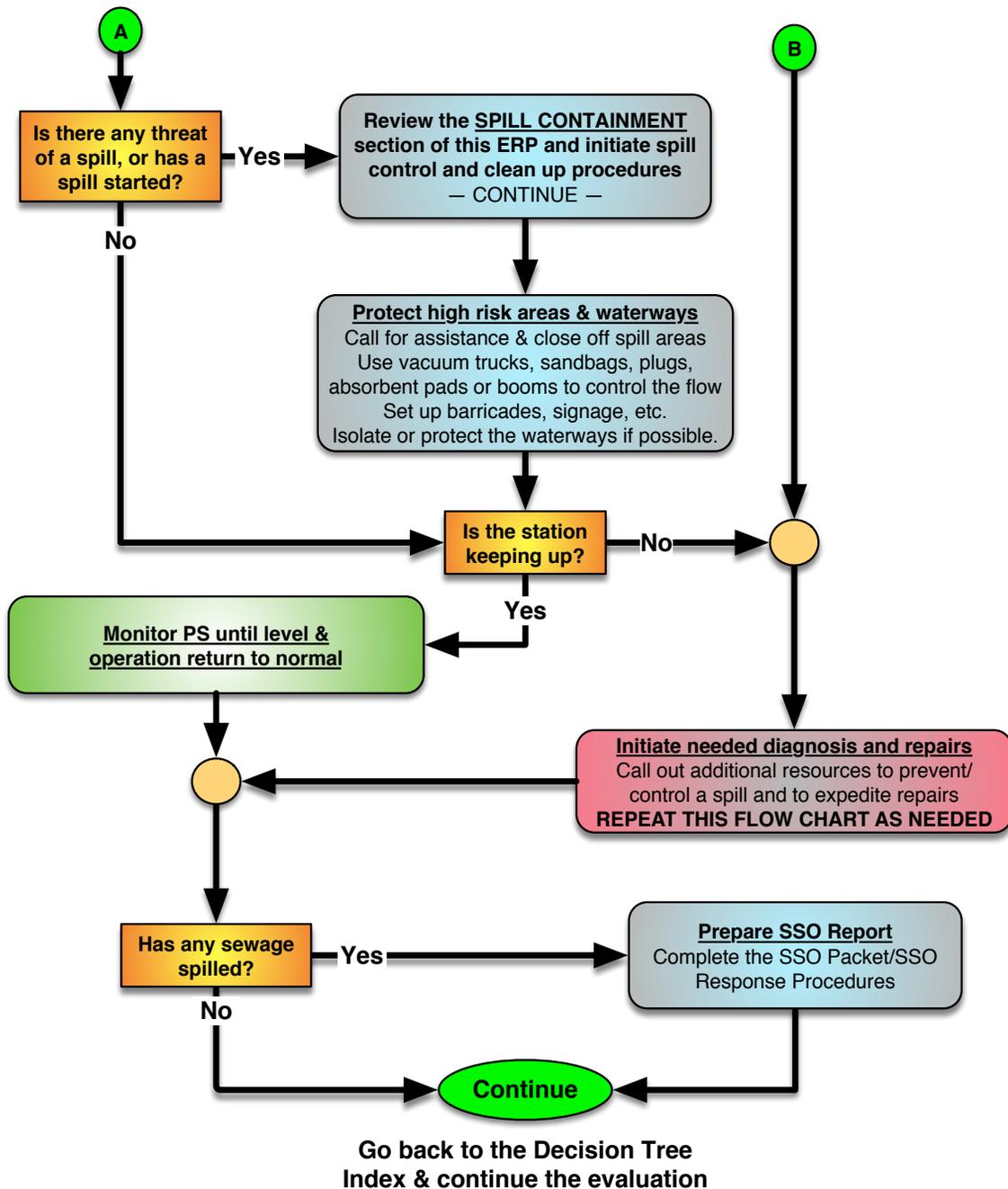
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ○ Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - *Continued*

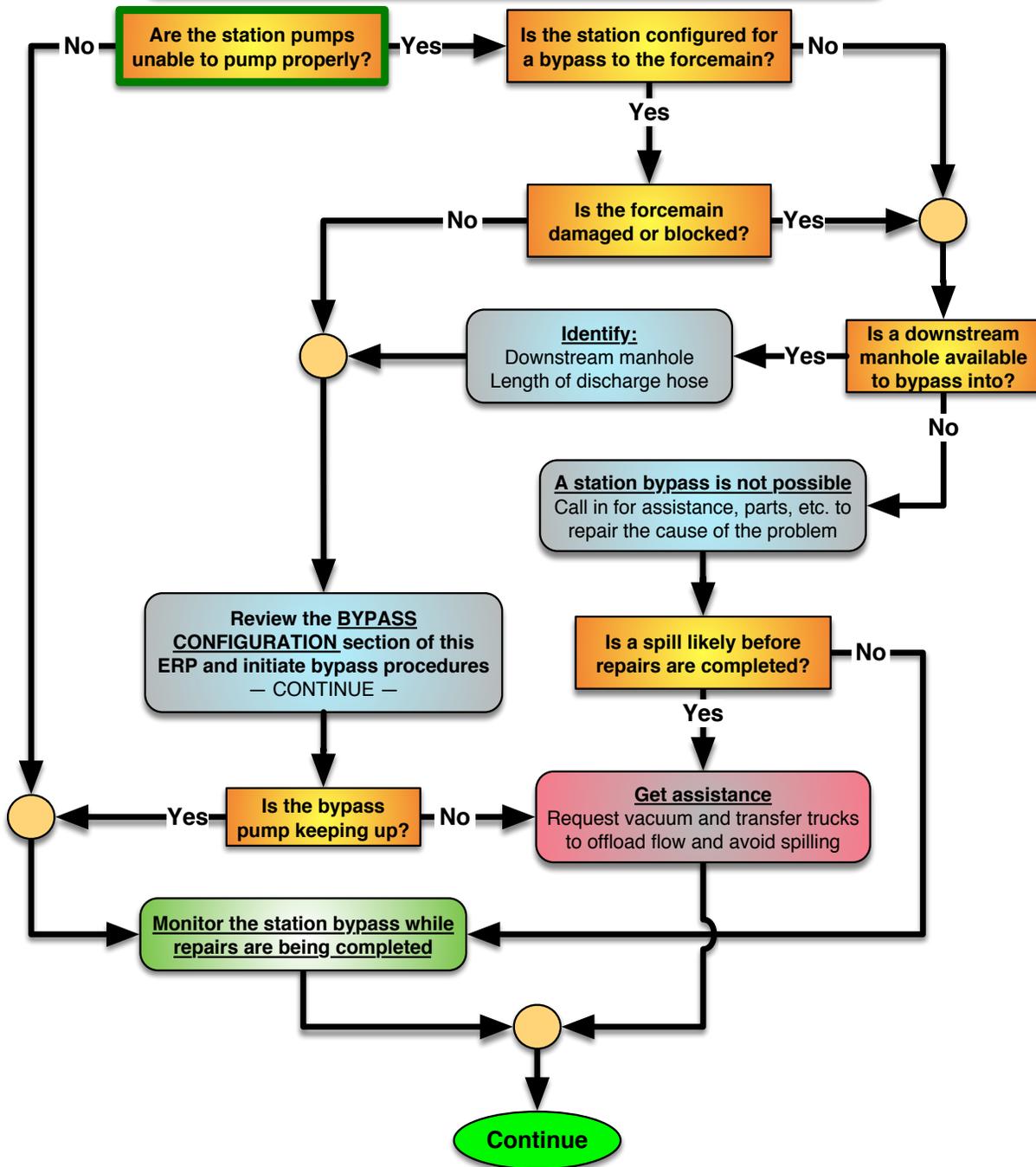


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



Go back to the Decision Tree Index & continue the evaluation

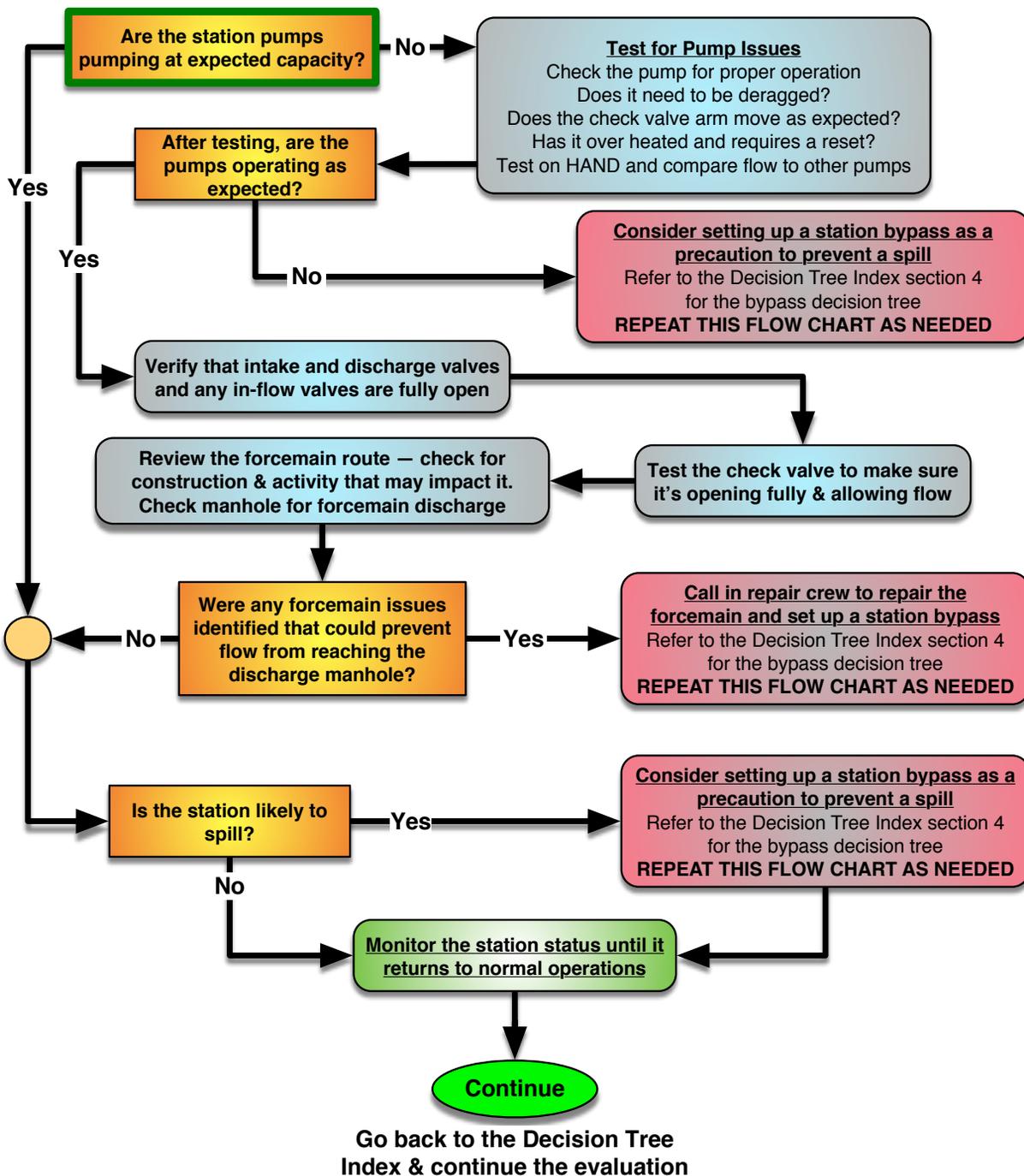
LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5

Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND



Initial Question



Page-To-Page



Sequence Merge



Decision Point



Task/Direction Item

Spill Notification Procedures

Pump Station A is located in the Jurisdiction of the
San Francisco Bay Regional Water Control Board (#2)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

See the Contact Information Section for contact information
Page 42

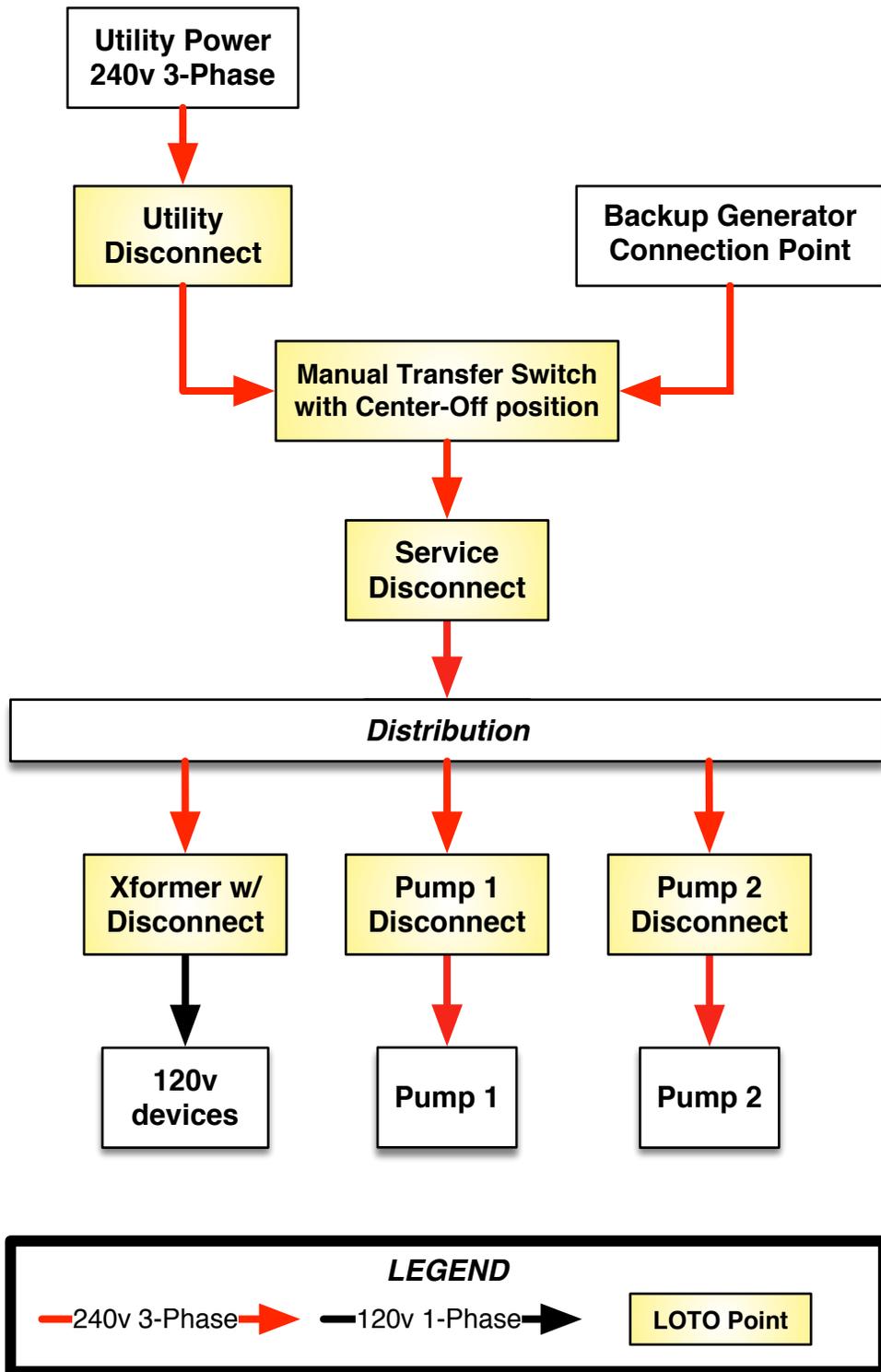
Spill Containment



Potential SSO Impact on State Water

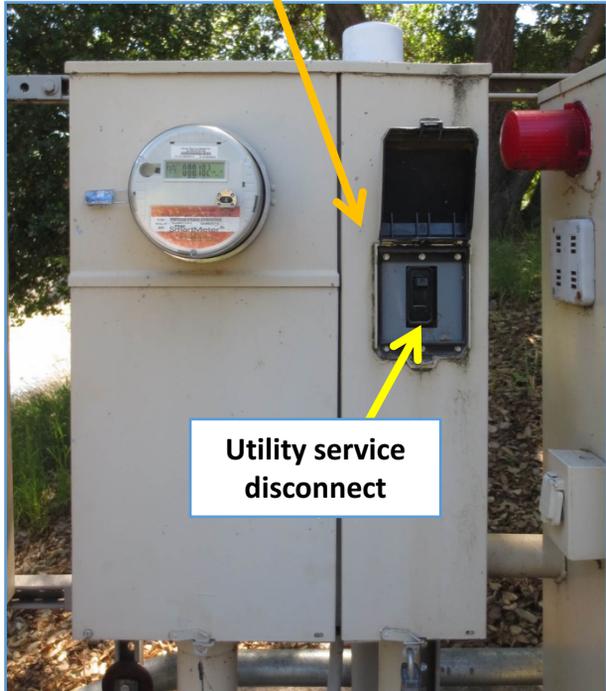
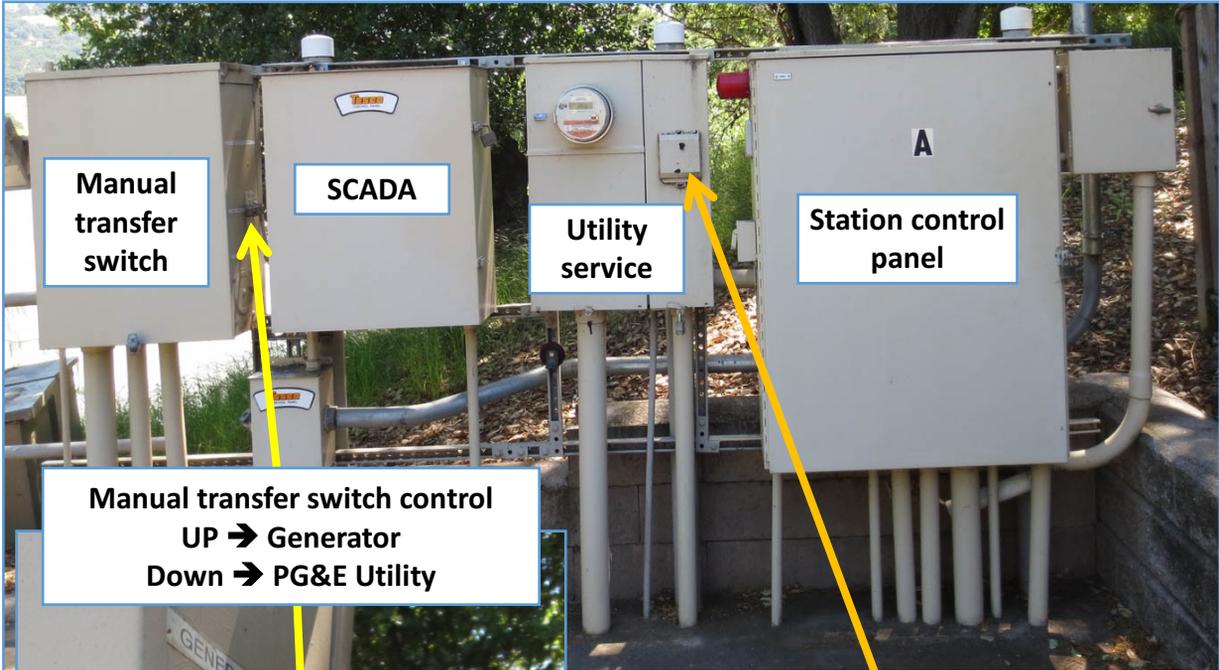
	Type	Position from low point	Containment
1	Pump station	10' E	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low point	-	
3	Anderson Lake	~100' NE	
4	<i>Expected flow direction from system low point</i>		

Pump Station Power Map



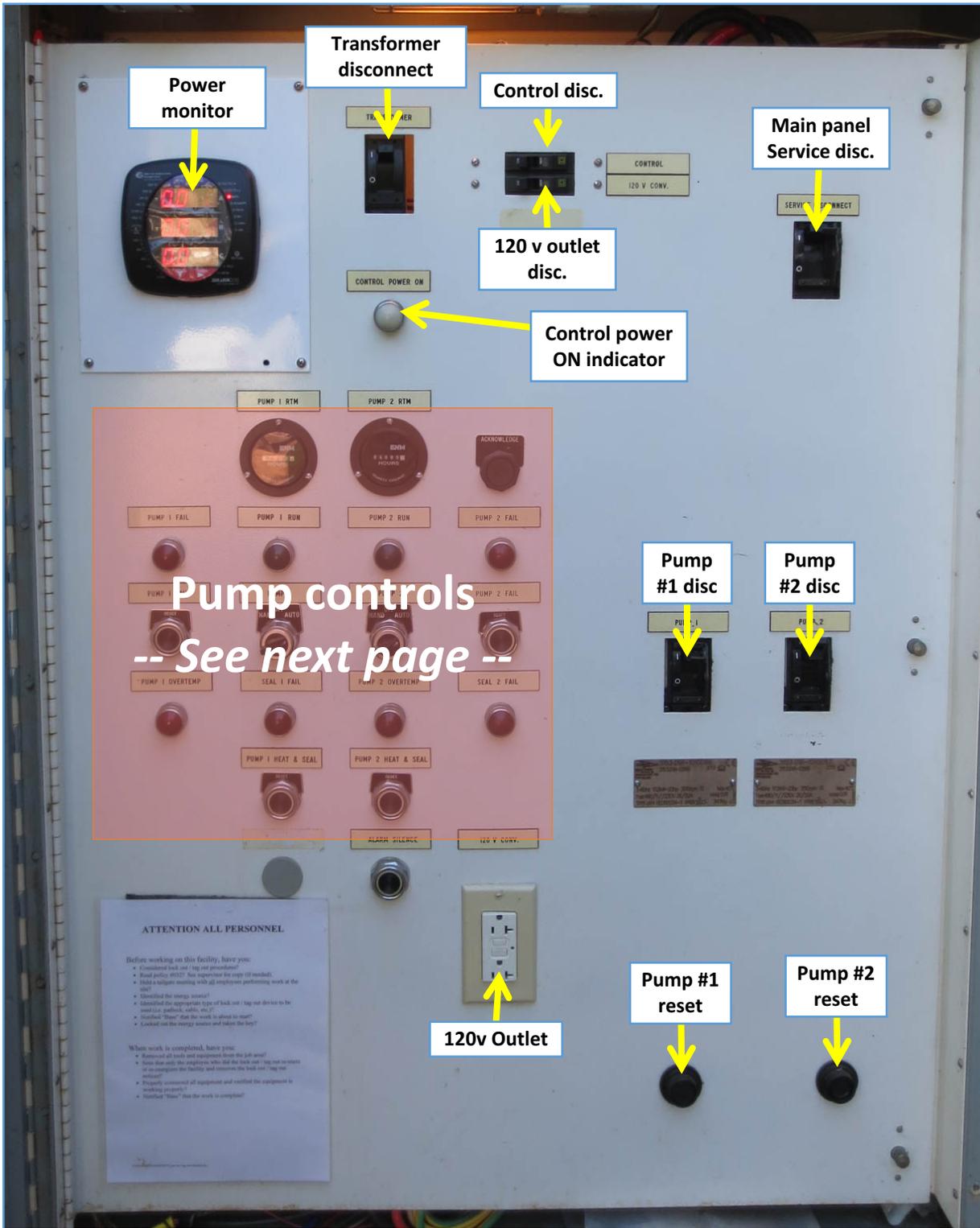
Done

Pump Station Control System



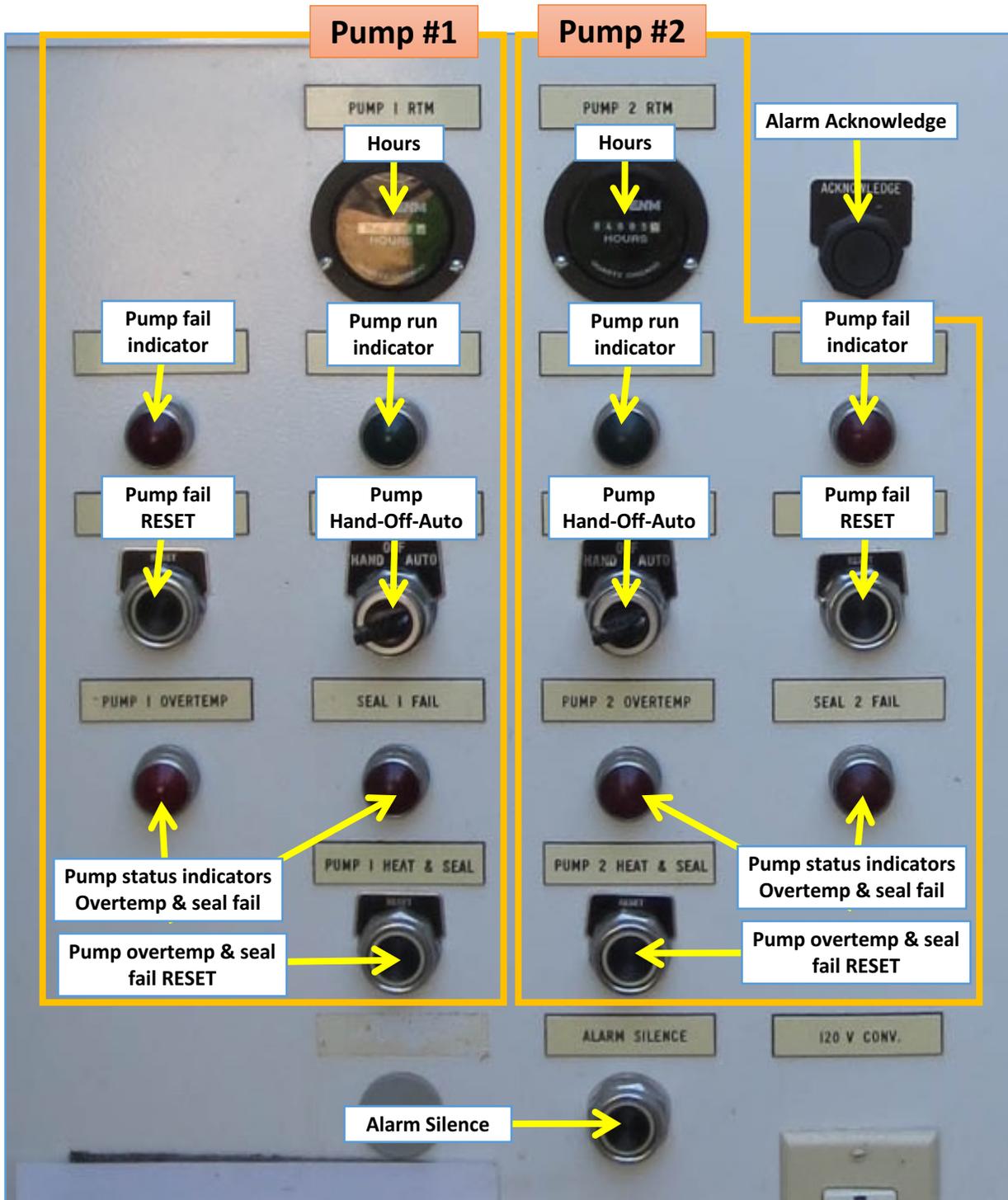
Next

Pump Station Control System



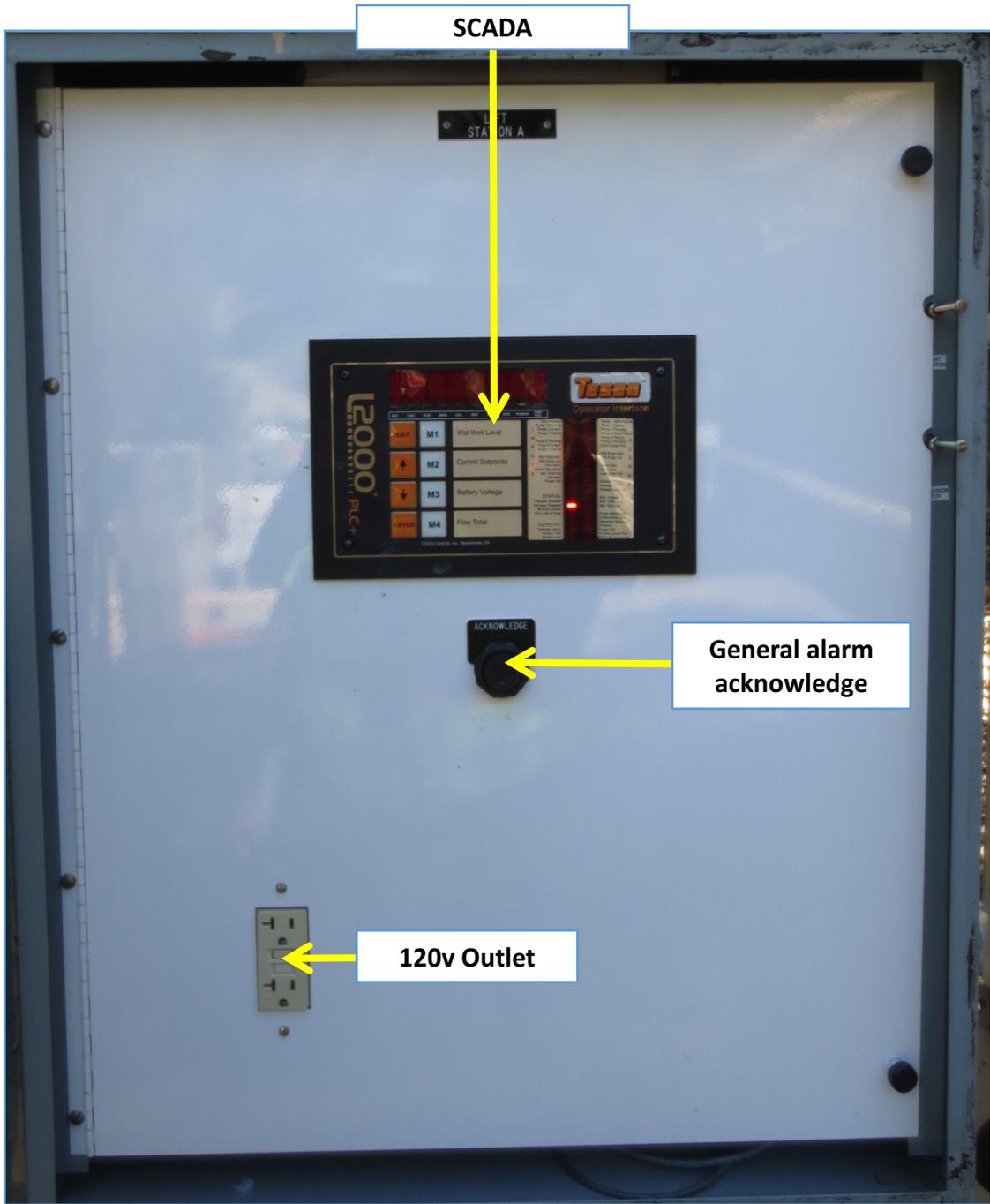
Next

Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and potentially by portable backup generator. Care must be taken to disable all energy sources.

Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down (if attached) and disable the generator
4. Move the utility service disconnect to OFF & install LOTO device & tag
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**

**Move BOTH pump
disconnects DOWN to OFF**



Next

Lockout/Tagout Procedures

If a portable generator is attached, shut it down and disable it from starting

Move the utility service disconnect
DOWN to OFF & install a LOTO device



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

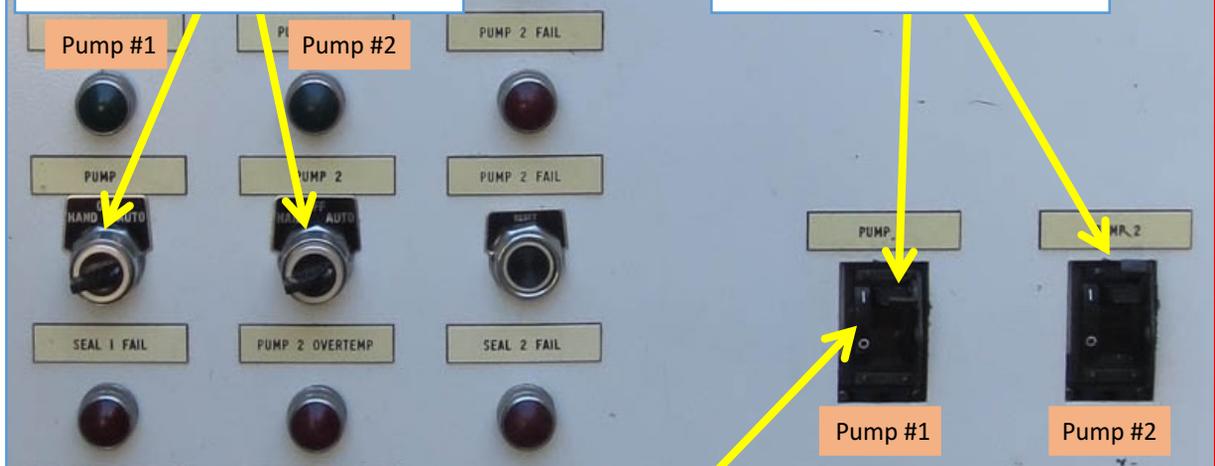
On control panel for desired pump

1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel

Rotate the desired pump
Hand-Off-Auto switch to OFF

Move the associated pump
disconnect DOWN to OFF



Install a LOTO device on the
pump disconnect breaker



Next

Lockout/Tagout Procedures

Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

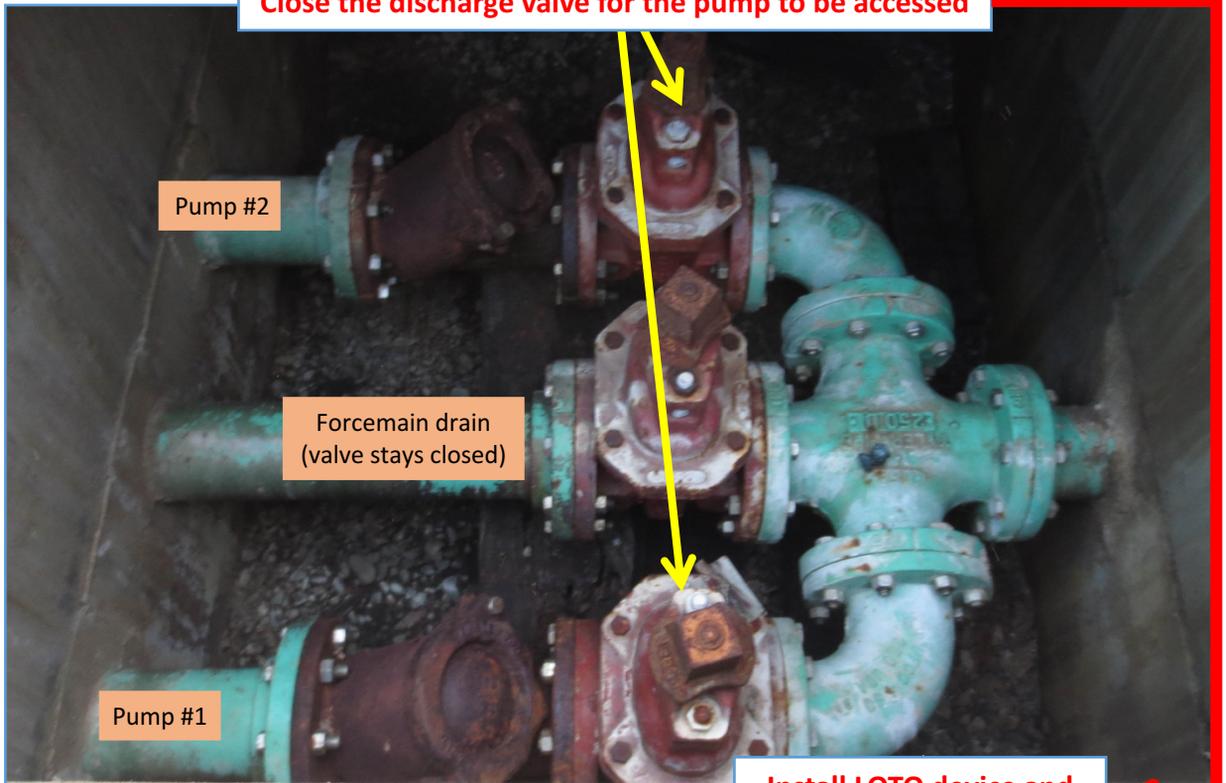
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Generator Operation

Portable Generator Connection & Operation

- Reduce the potential load on the station – Shut pumps off
- Shut the utility service disconnect OFF
- Connect the generator
- Unlock and move the manual transfer switch to GENERATOR
- Start the generator & then turn the generator output breaker ON
- Enable the pumps as desired

Begin

Rotate BOTH pump
Hand-Off-Auto switches to OFF

Move BOTH pump
disconnects DOWN to OFF



Move the utility service
disconnect DOWN to OFF

Next



Generator Operation

This station requires 240v 3-phase power
Be sure the generator is appropriately sized and configured for use

Connect the portable generator to the emergency generator power port

Unlock and move the manual transfer switch handle UP to GENERATOR

Always relock the handle before leaving the pump station

Follow the appropriate Portable Generator Procedures for starting and bringing the portable generator online
➔ *Once it's operating, continue*

Next

Generator Operation

AS DESIRED: Enable station systems

**Rotate BOTH pump
Hand-Off-Auto switches to
HAND or AUTO as desired**

**Move BOTH pump
disconnects UP to ON**



At this point, the station should be running on generator power and completely independent of utility grid power

Done

Generator Operation

To return to utility power

- Reduce the potential load on the station – Shut pumps off
- Shut the generator OFF & disconnect the generator
- Unlock and move the manual transfer switch to UTILITY/PG&E POWER
- Move the main utility service breaker to ON
- Enable the pumps as desired

Begin

Rotate BOTH pump
Hand-Off-Auto switches to OFF

Move BOTH pump
disconnects DOWN to OFF



Follow the appropriate Portable Generator Procedures
for shut down and disabling the portable generator
→ *Once it's fully stopped, continue*

Disconnect the portable generator from
the emergency generator power port



Next

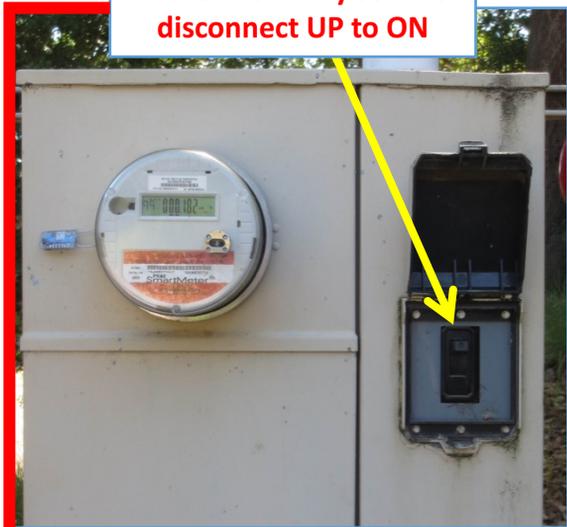
Generator Operation

Unlock and move the manual transfer switch handle DOWN to UTILITY/PG&E POWER



Always relock the handle before leaving the pump station

Move the utility service disconnect UP to ON



AS DESIRED: Enable station systems

Rotate BOTH pump Hand-Off-Auto switches to HAND or AUTO as desired

Move BOTH pump disconnects UP to ON



At this point, the station should be running on UTILITY/PG&E Power

Done

Bypass to Force Main

Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the valves needed to return to normal operations

Begin Procedure

Park the pump to route the hose with minimal bends and length whenever possible.



Next

Bypass to Force Main

Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

Rotate BOTH pump Hand-Off-Auto switches to OFF

Move BOTH pump disconnects DOWN to OFF



Install a LOTO device on the pump disconnect breaker for the pump that will have it's check valve worked on



Next

Bypass to Force Main

Close the both discharge valves



Install LOTO device and tag onto the check valve for the pump that will have it's check valve worked on

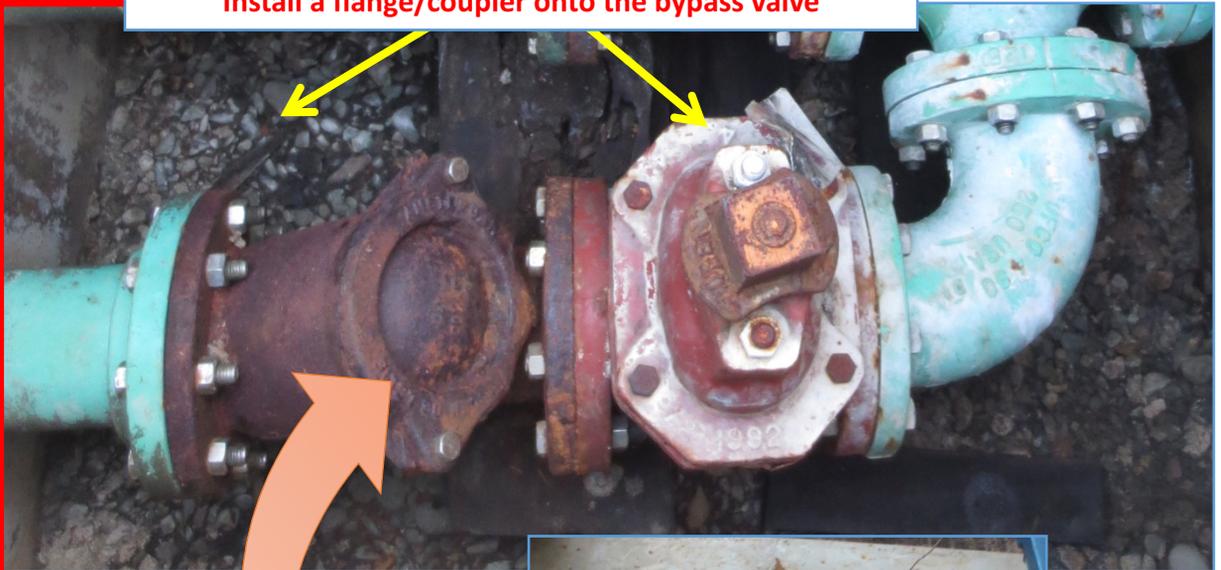
Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!



Next

Bypass to Force Main

Install a flange/coupler onto the bypass valve

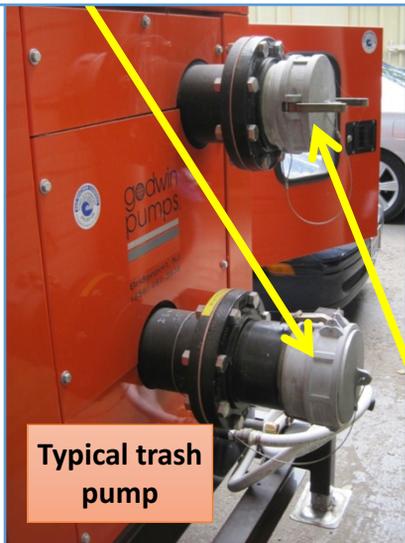


Typical check valve-to-bypass port coupler/adaptor

Next

Bypass to Force Main

Connect a suction hose with strainer-end to the intake port



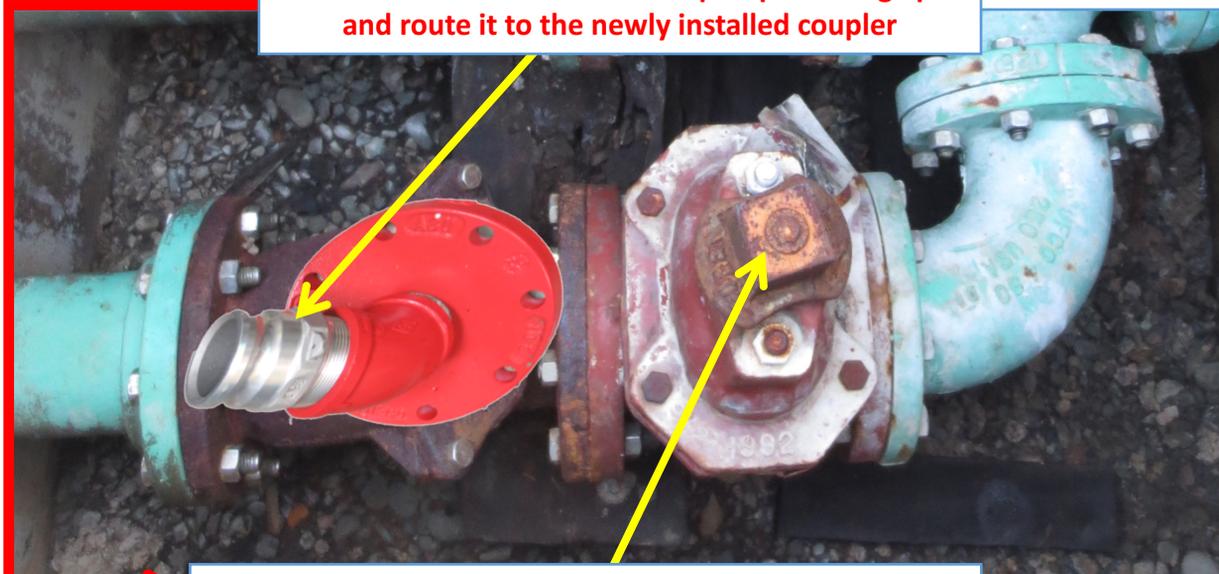
Typical trash pump

Lower the suction hose into the wet well



It's good practice to use a strainer end on the suction hose whenever possible

Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

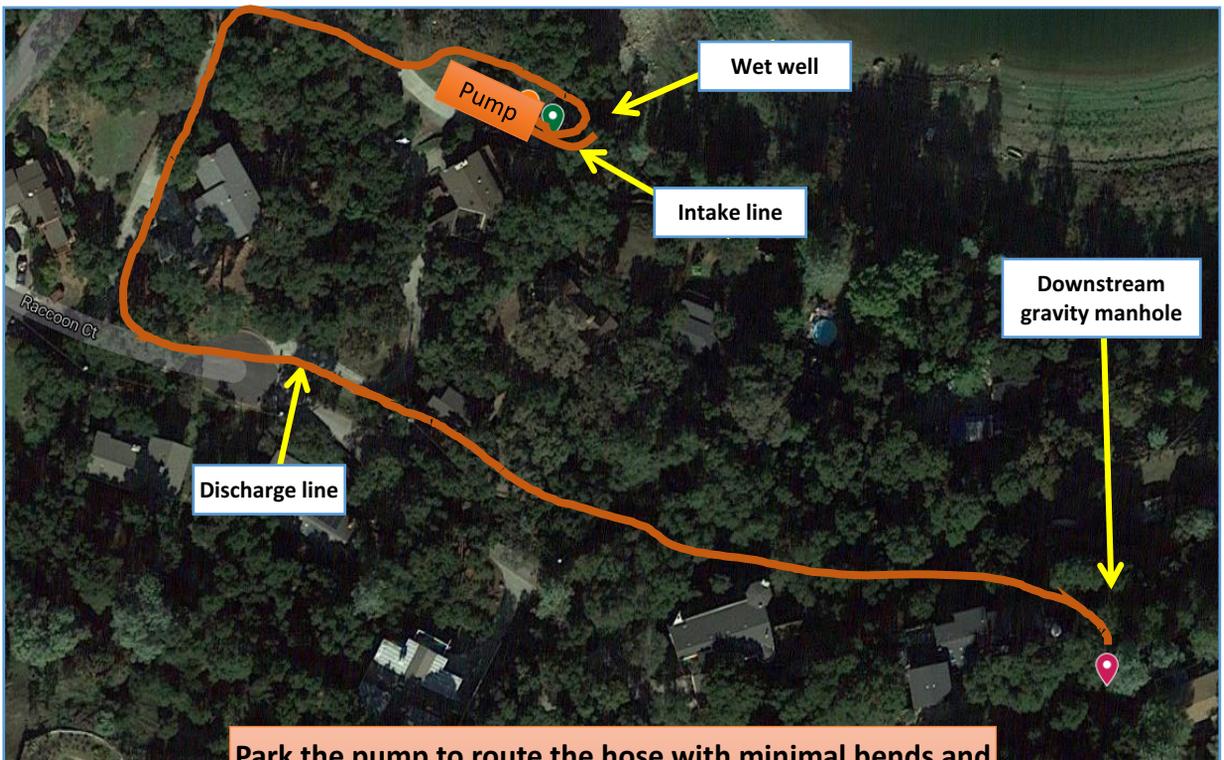
Bypass to Downstream Manhole

Procedure Summary

Configure the station for bypass:

Although a station bypass using a portable pump is possible (and detailed below), the long hold time makes regular tanker transfers a better option for most situations.

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump; route the hose to the nearest gravity manhole
- Verify all connections
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the pump down & relieve any residual pressure
 - Disconnect the hoses and clean up
 - Return the station to normal operations



Park the pump to route the hose with minimal bends and length whenever possible. NOTE: There will be multiple vehicle crossing points that will required attention

Next

Bypass to Downstream Manhole

Park & prepare the trash pump
Select a parking spot to limit hose bending



Set up appropriate traffic control devices as needed

Connect an intake hose to the pump suction; route it to the wet well



Typical trash pump

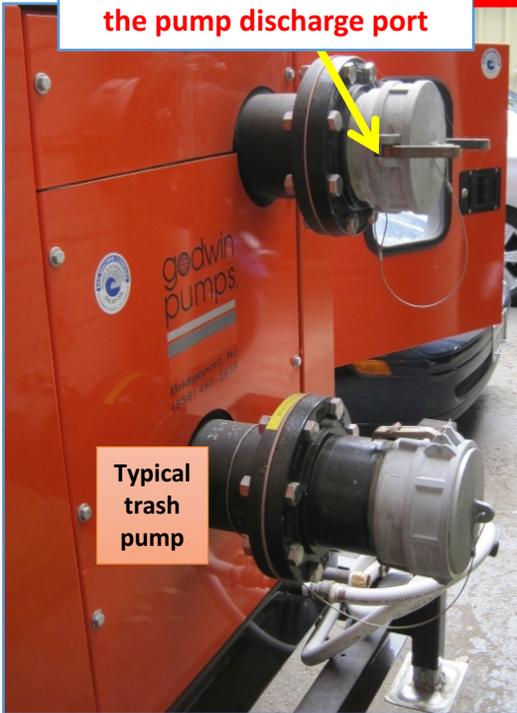
Lower the hose into the wet well



Next

Bypass to Downstream Manhole

Connect an discharge hose to the pump discharge port



Typical trash pump

Route the discharge to the discharge point
Approx. Discharge: 37.15706, -121.610362

Directions:

- Route the hose up the driveway
- Left down Raccoon Ct. to the end
- Take the dirt road on the right (High Road)
- Follow the road until reaching the manhole

There will be multiple vehicle crossing points that will require attention!



Next

Bypass to Downstream Manhole

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing



Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Relieve any residual pressure in the discharge line
- Carefully disconnect, drain & stow the discharge line → ***Be careful to release any residual pressure and sewage back into the wet well to avoid a spill!***
- Close the downstream manhole
- Carefully disconnect, drain & stow the intake line
- Close the wet well
- Return the station to normal operations as desired
- Clean up and depart



Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

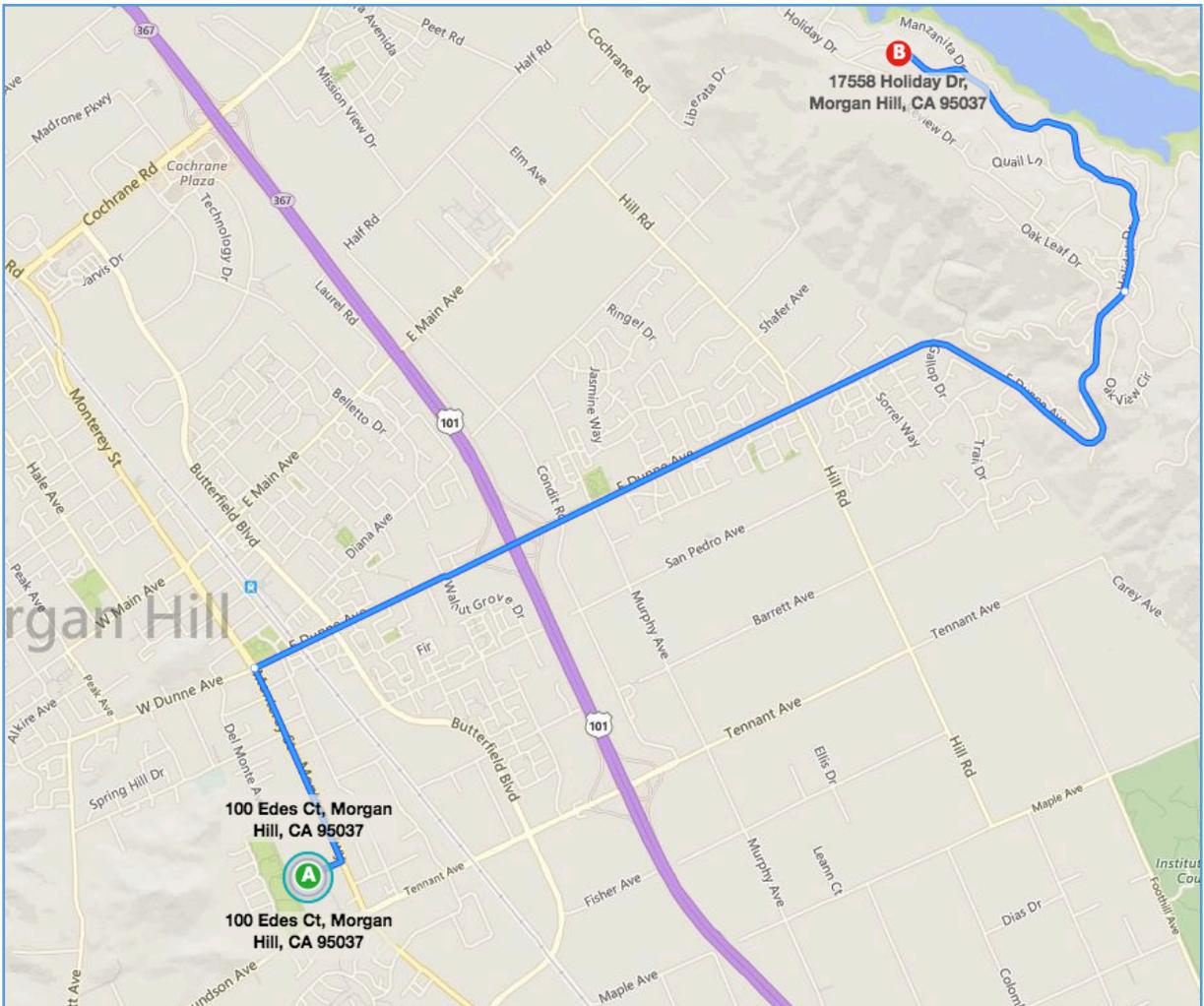


Pump Station PS-B
17588 Holiday Drive

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
Spill Containment	15
Pump Station Power Map	16
Pump Station Control System	17
Lockout/Tagout Procedures	22
Generator Operation	27
Bypass to Force Main	39
Contact Information	45
System Map	49

Pump Station Technical Information

Name	PS-B - 17558 Holiday Drive Pump Station
Address	17558 Holiday Drive, Morgan Hill, CA 95037
Lat., Long.	37.156844, -121.608223
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Turn right on E Dunne Ave., bear left on Holiday Dr. Turn right onto Holiday Ct. Turn right onto Blue Jay. Pump station is approx. ¼ mile on your left.



Pump Station Technical Information

Station Information

Wet well dimensions & capacity	Tank 1: 8' diameter x 19' deep; 7,144 gallons Tank 2: 4' diameter x 15' deep; 1,410 gallons Tank 3: 6' diameter x 6' deep; 1,269 gallons Total Capacity: 9,823 gallons
Est. hold time (dry weather)	6 hours
Low point (likely overflow point)	Manhole at pump station (on lower level) Approx. GPS: 37.156819, -121.608158
Upstream pump station(s)	PS-A
Downstream pump station	PS-C
Forcemain Data	6" x 1,650'
Discharge location	37.153712, -121.604953

Pump Capacities

Pump	Motor & Pump	Capacity
#1	Flygt 3153/463, 15hp, 240v 3-phase	203 gpm
#2	Flygt 3153/463, 15hp, 240v 3-phase	203 gpm

Station Power

Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038035
	PG&E Meter #	1009919167
	PG&E Outage Block	50
	Priority	Sewer pump station
Backup Generator	The station is equipped with a KOHLER 40RE0ZJB 40kw permanently installed backup generator.	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port. however the station may be bypassed by installing an adapter onto one of the check valves.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

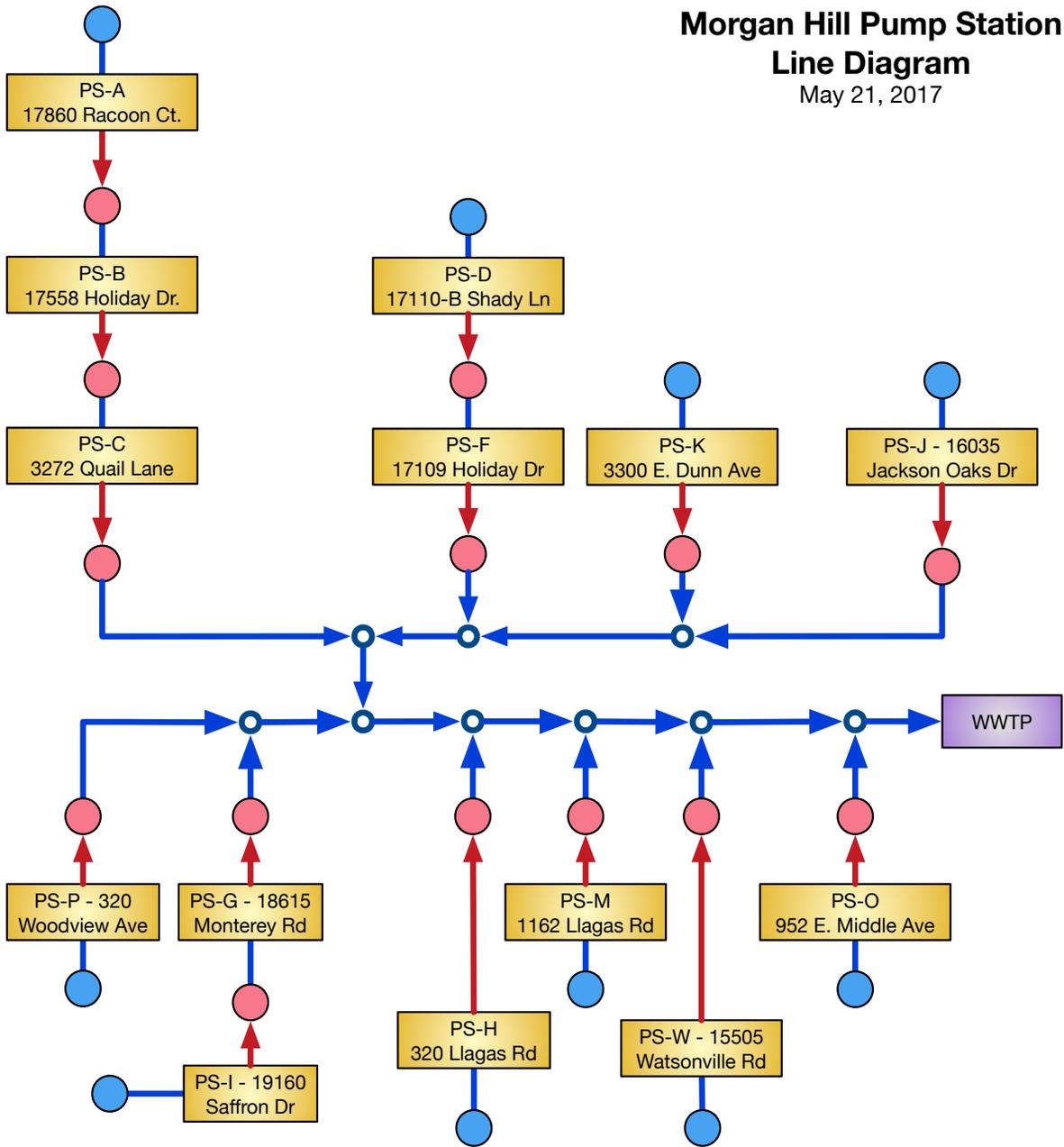
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

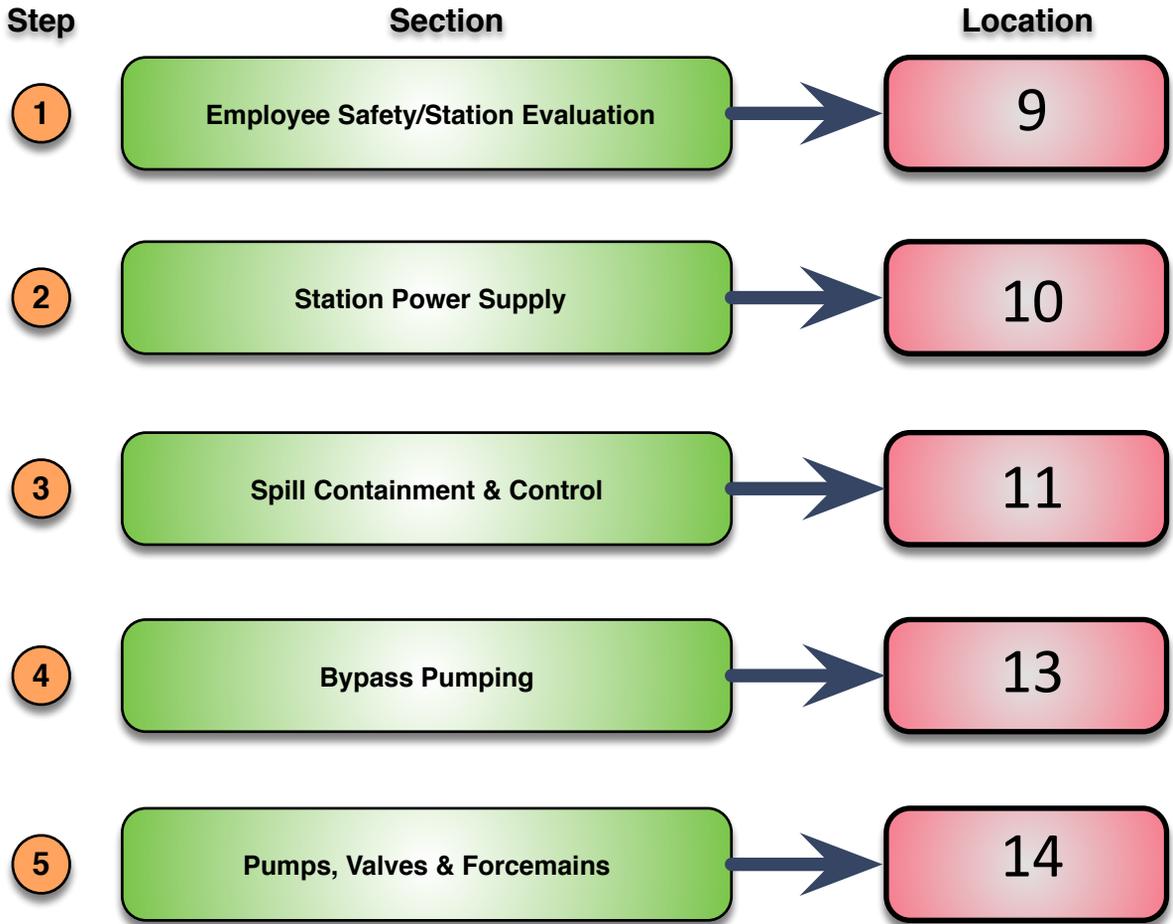
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
● Gravity Feed Only	→ Force main & flow direction
● Force Main Discharge	→ Gravity line & flow direction
◆ Force Main Junction	PS Morgan Hill managed PS
○ Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide Decision Tree Index



LEGEND



Initial Question



Decision Point



Page-To-Page Link



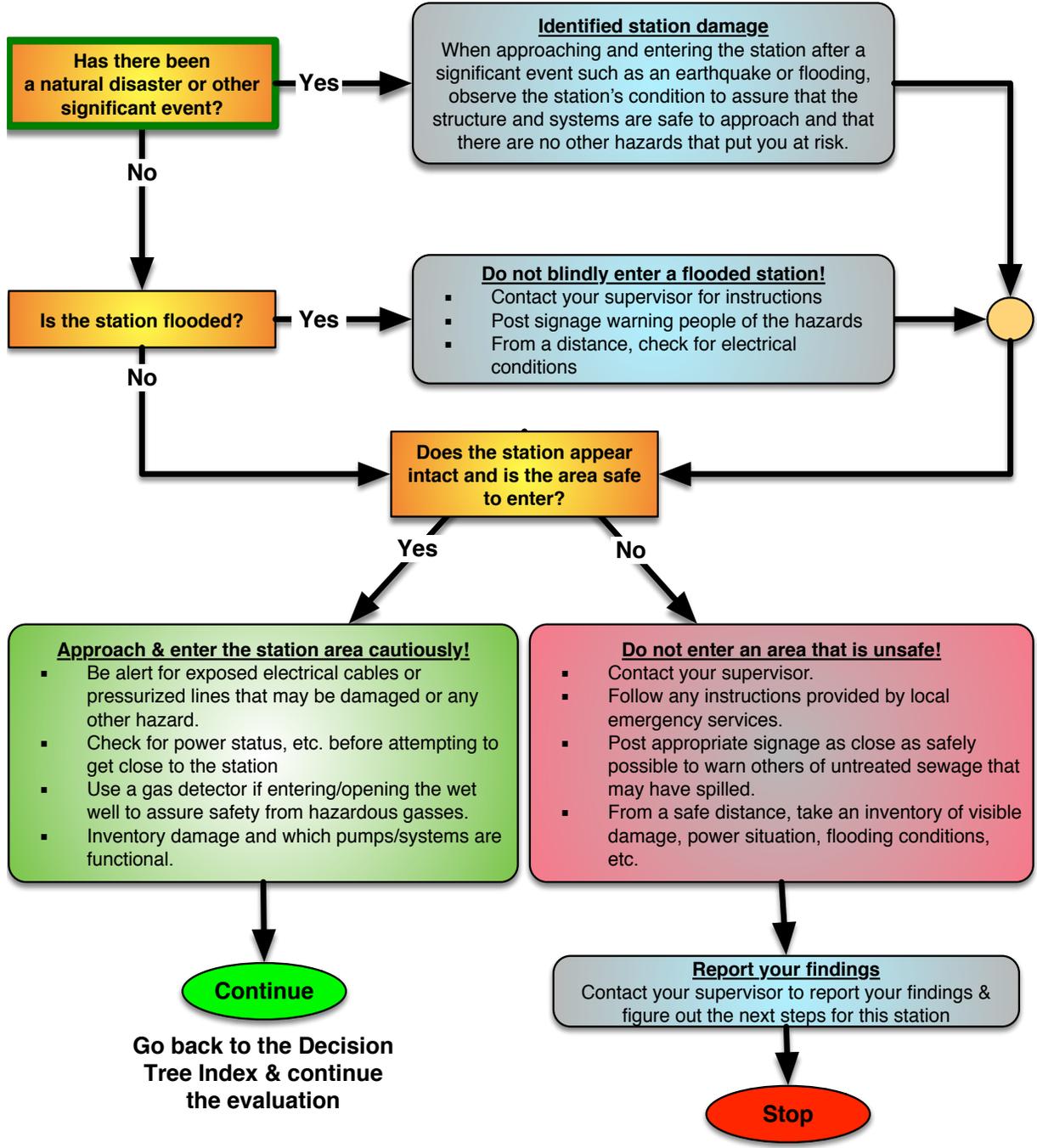
Task/Direction Item



Sequence Merge (Watch arrows for flow direction)

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

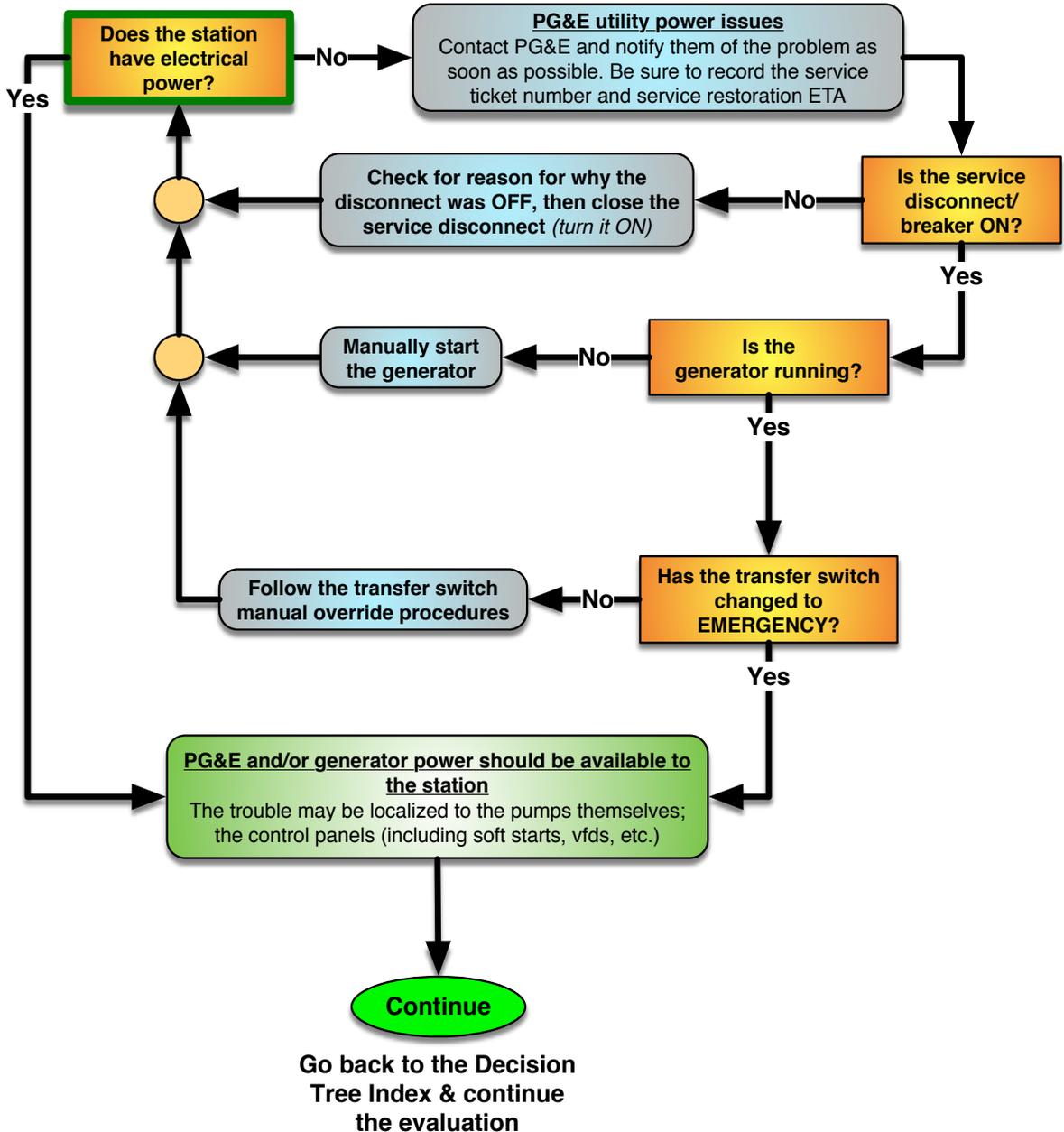


LEGEND

- Initial Question
- Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

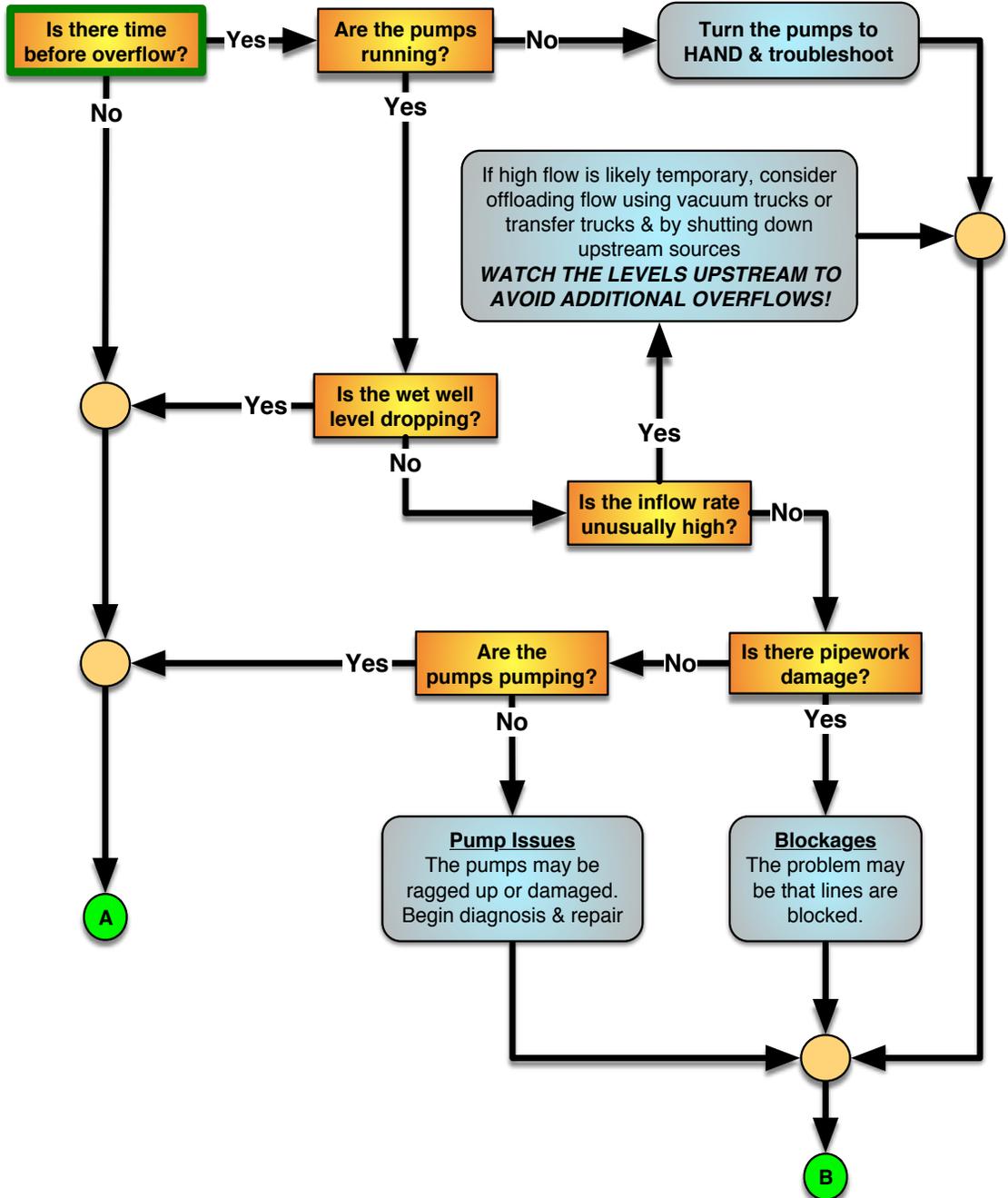
2 Pump Station Emergency Response Guide Station Power Supply



LEGEND ? Initial Question X Page-To-Page ● Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control

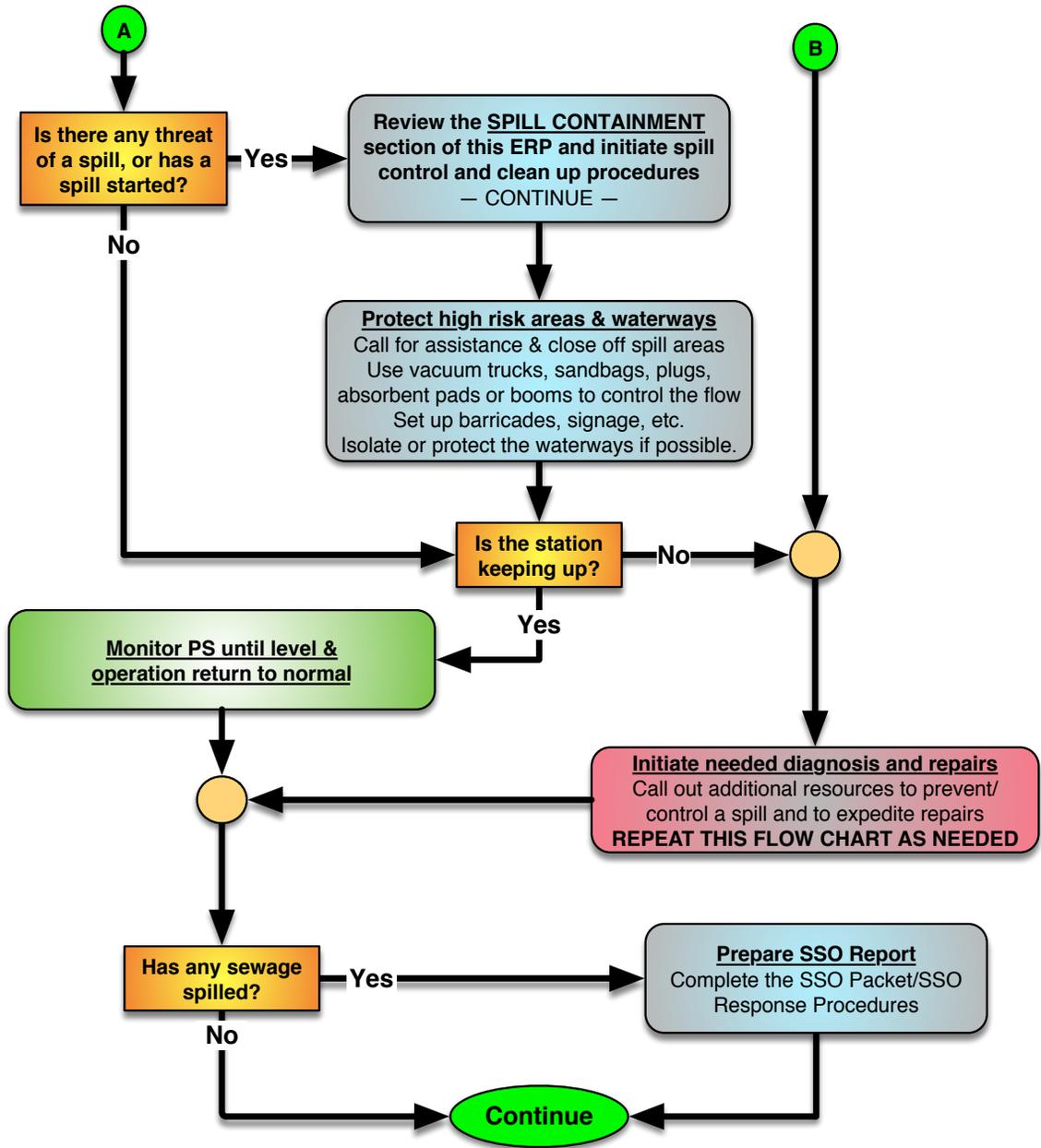


LEGEND

- ? Initial Question
- x Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - *Continued*



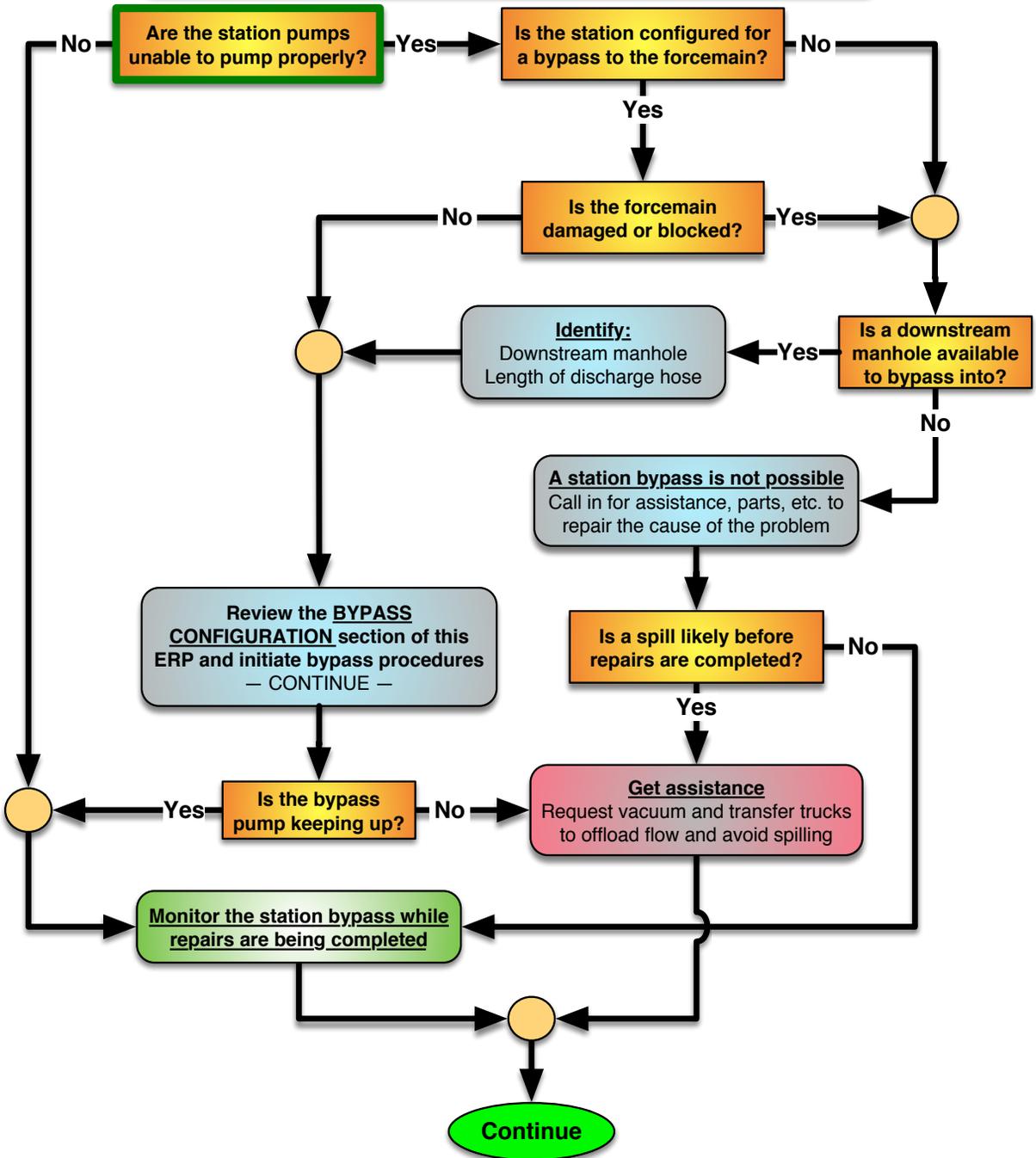
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



Go back to the Decision Tree Index & continue the evaluation

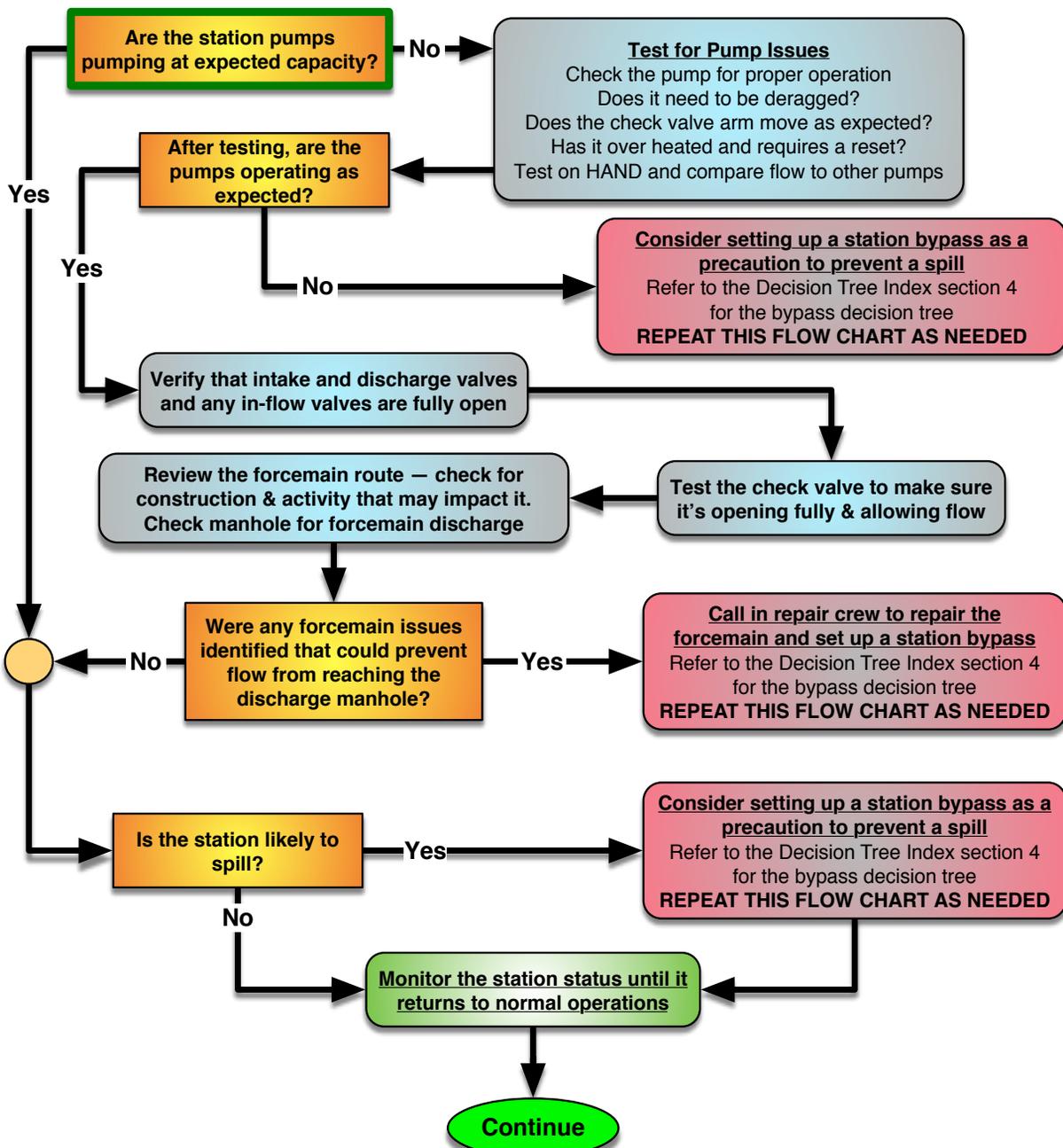
LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5

Pump Station Emergency Response Guide Pumps, Valves & Forcemains



Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Spill Notification Procedures

Pump Station B is located in the Jurisdiction of the
San Francisco Bay Regional Water Control Board (#2)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

See the Contact Information Section for contact information
Page 45

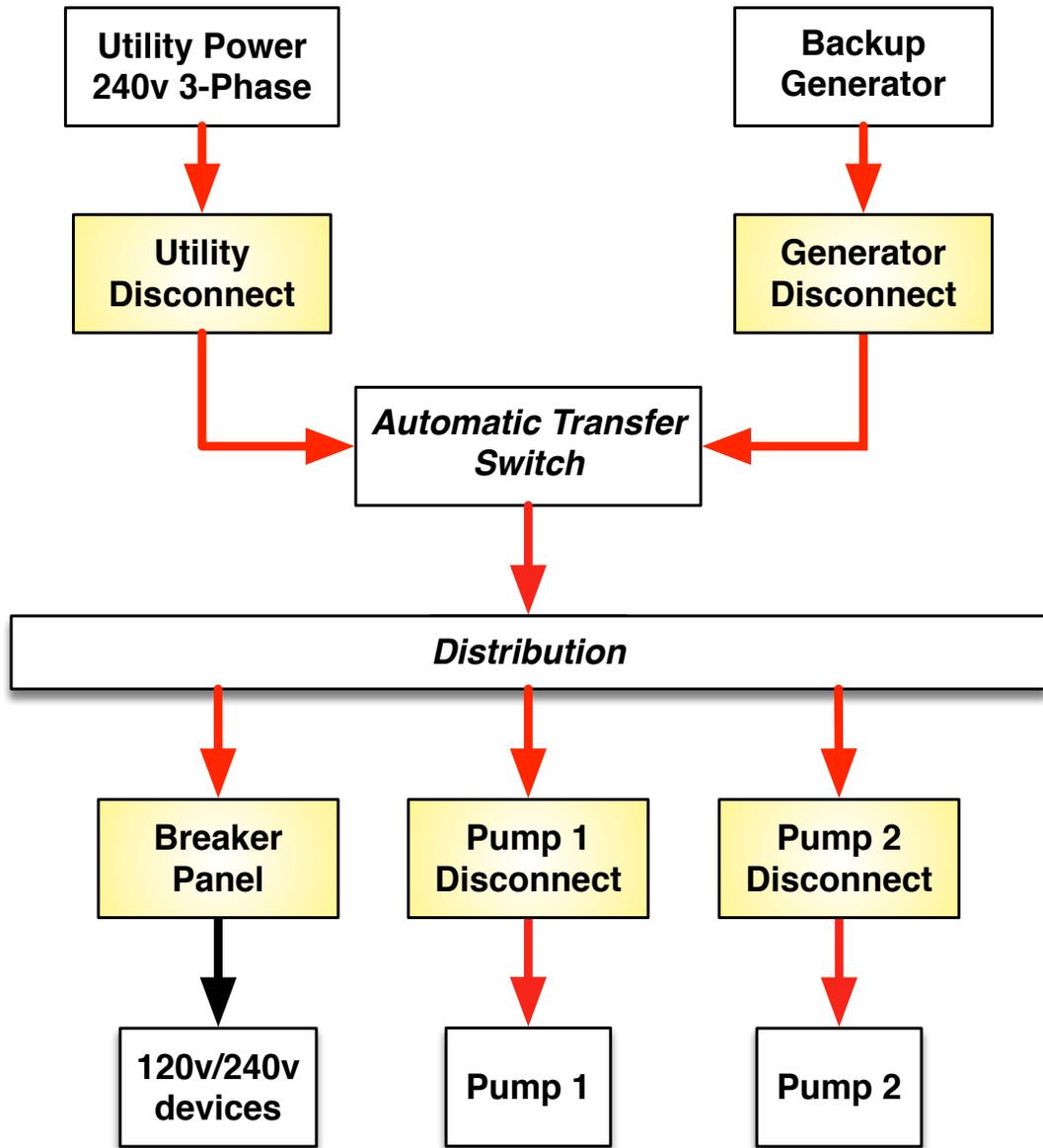
Spill Containment



Potential SSO Impact on State Water

	Type	Position from low point	Containment
1	Pump station	20'	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low point	-	
3	Hillside	~30'	
4	<i>Expected flow direction from system low point</i>		

Pump Station Power Map



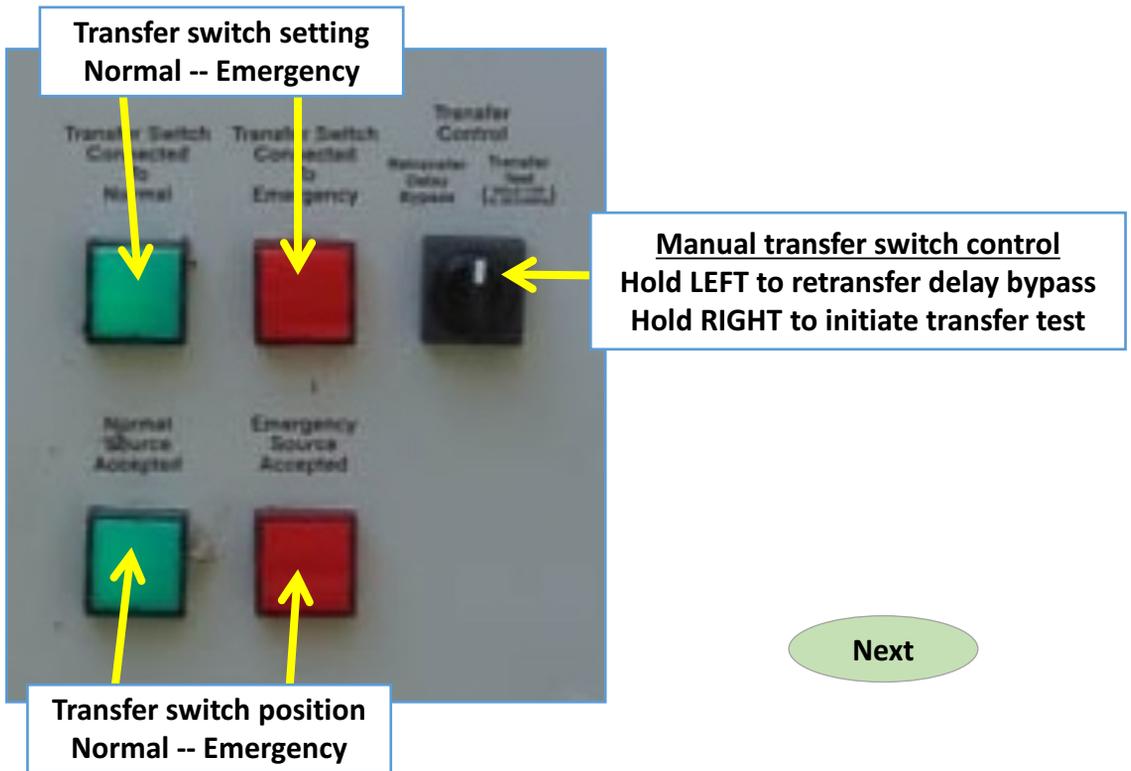
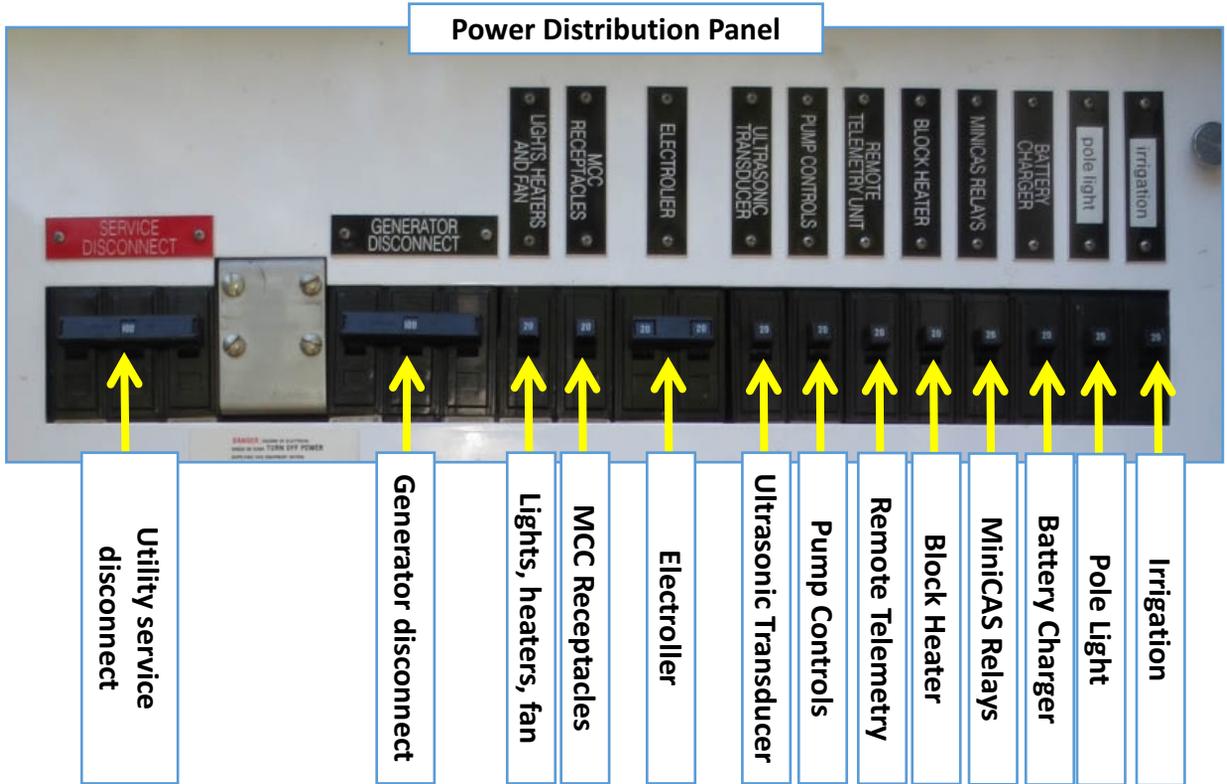
Done

Pump Station Control System



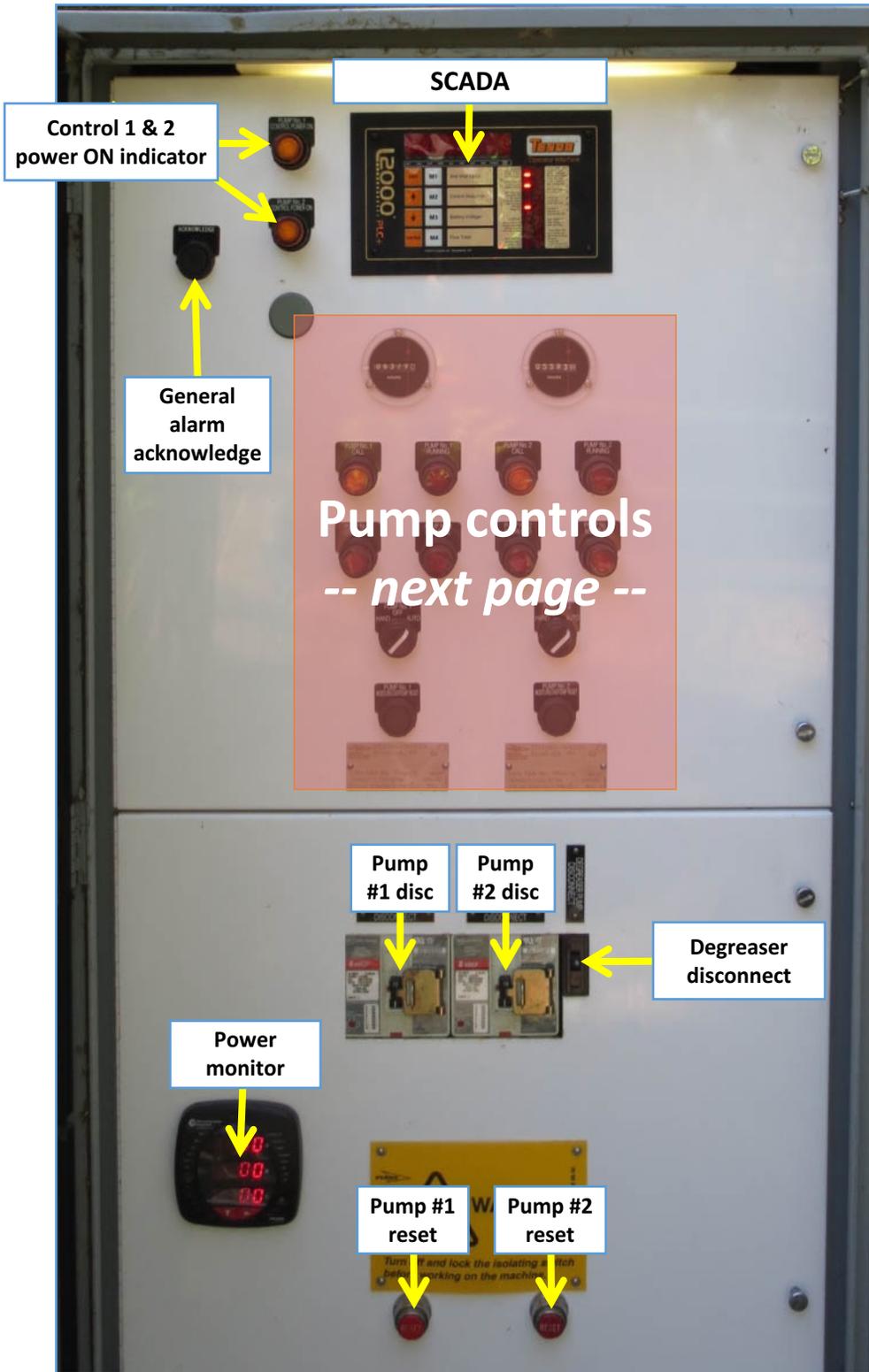
Next

Pump Station Control System



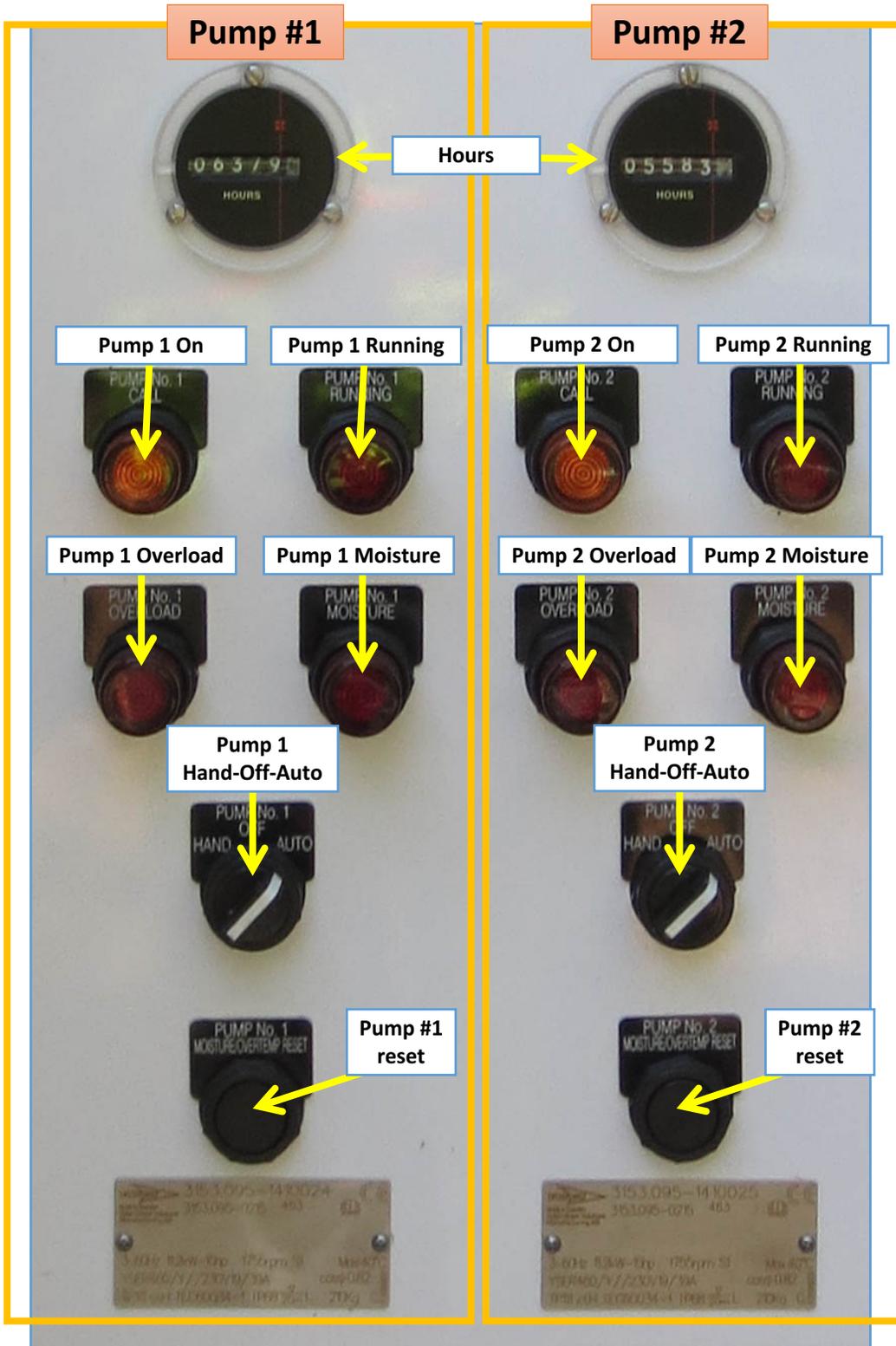
Next

Pump Station Control System



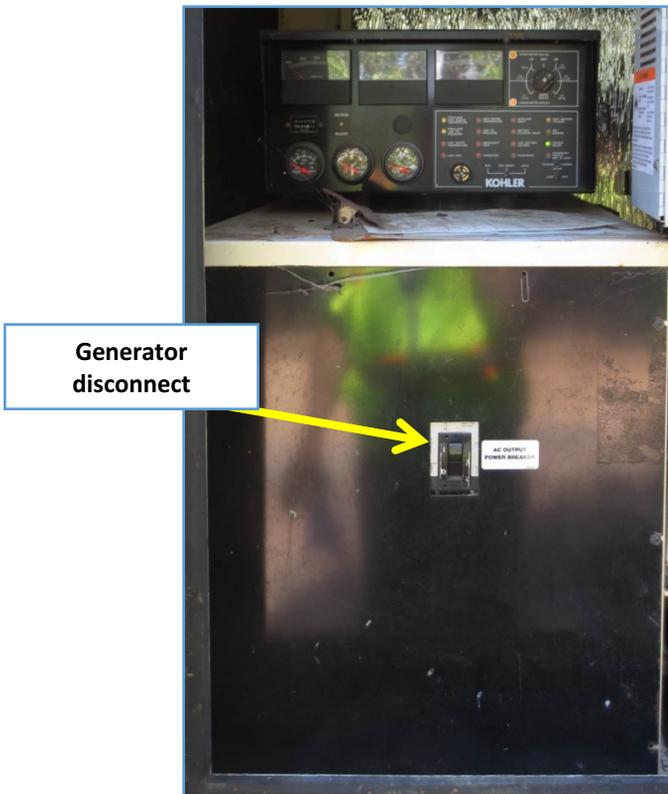
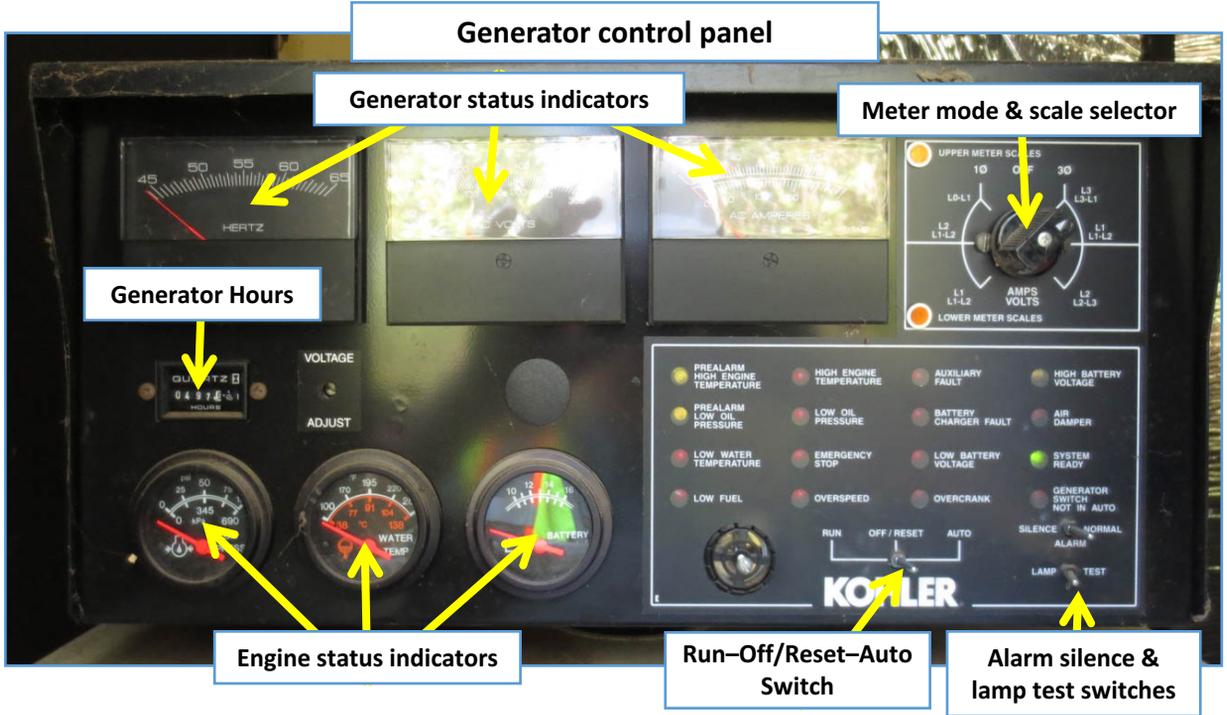
Next

Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and by an automatic backup generator. Care must be taken to disable all energy sources.

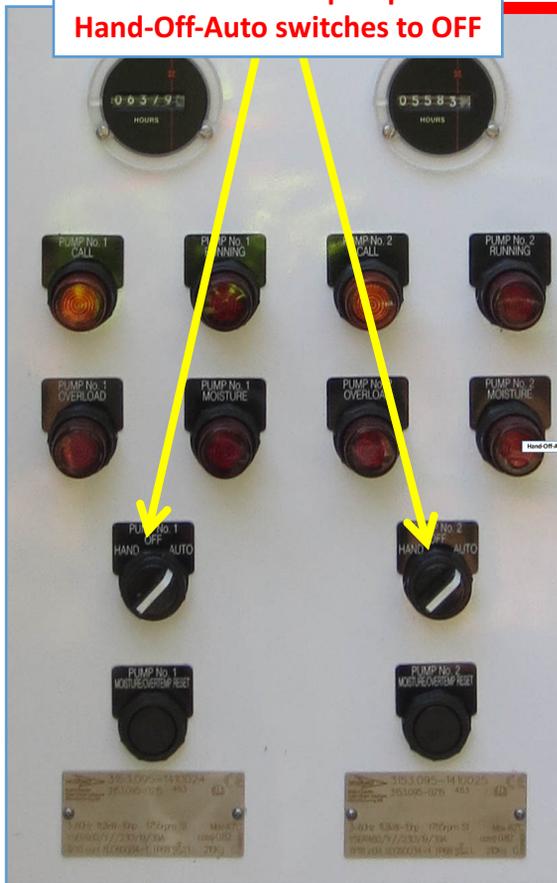
Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

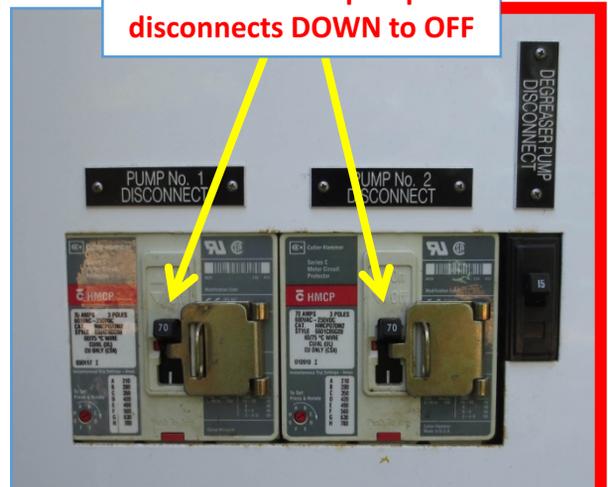
1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down and disable the generator
4. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



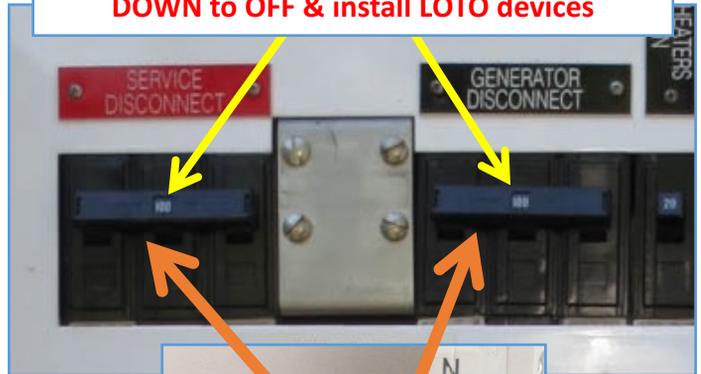
Next

Lockout/Tagout Procedures

At the generator panel, move the RUN – OFF – AUTO switch to OFF (middle), then move the generator disconnect down to OFF



Move the utility service & generator disconnects DOWN to OFF & install LOTO devices



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!



Done

Lockout/Tagout Procedures

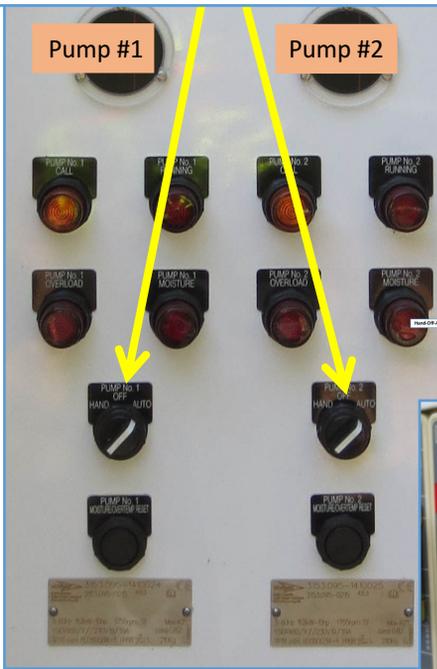
Individual Pumps – Electrical LOTO

On control panel for desired pump

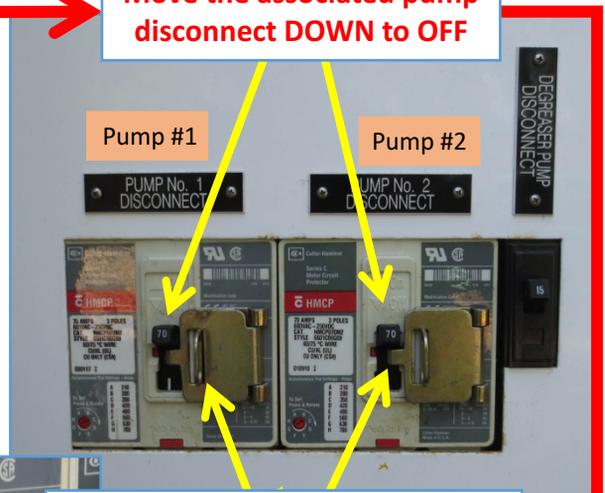
1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel

**Rotate the desired pump
Hand-Off-Auto switch to OFF**



**Move the associated pump
disconnect DOWN to OFF**



**Install a LOTO device on the pump
disconnect breaker lockout tab**



Next

Lockout/Tagout Procedures

Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

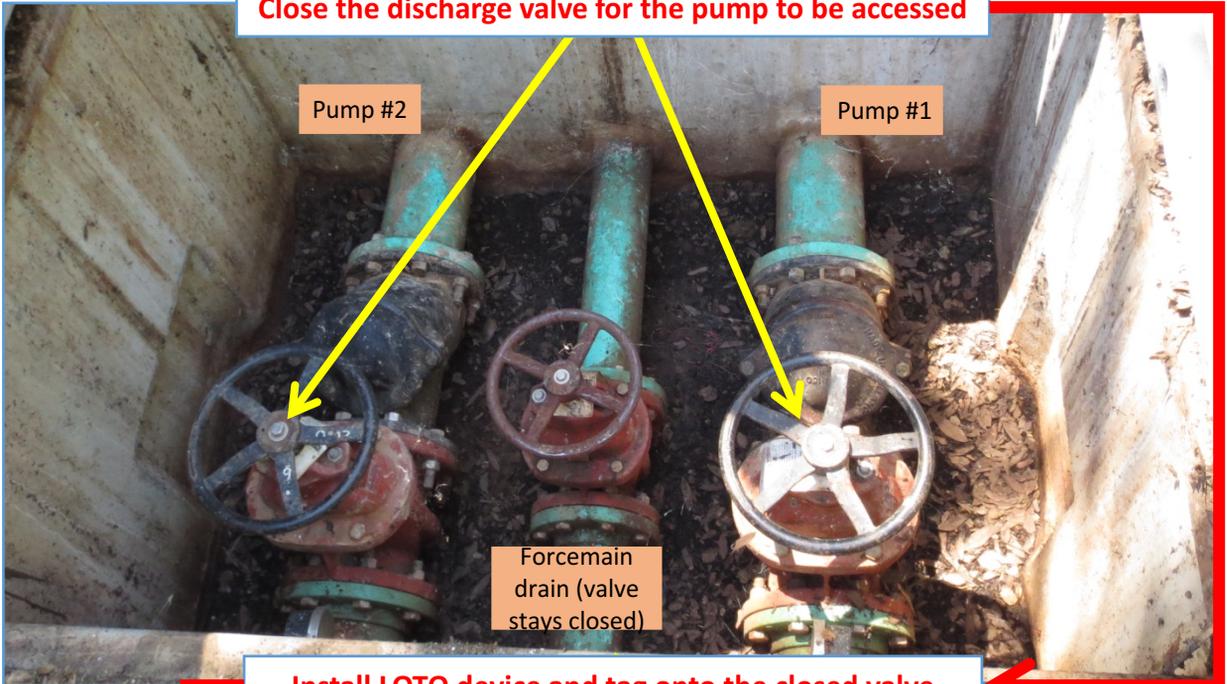
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

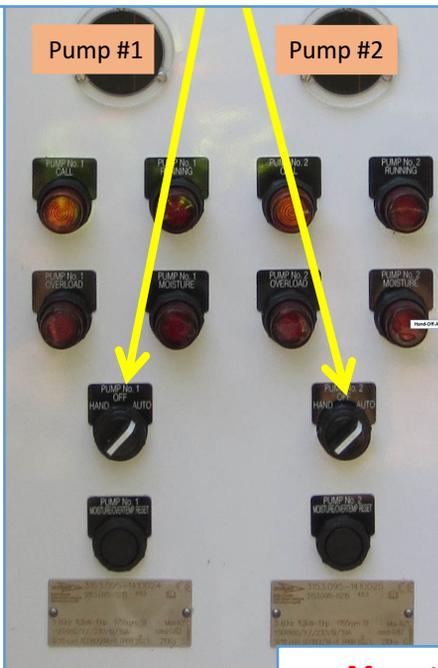
Generator Operation

If utility power is available

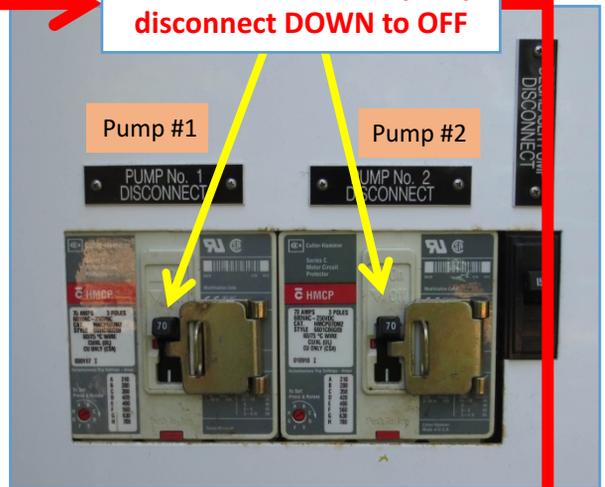
- Reduce the load on the station – Shut pumps off
- Shut the service disconnect off – *If the automatic transfer switch is operating properly, the generator should start and power the station.*
- Make sure that the generator output breaker is ON & the generator switch is in AUTO
- Enable the pumps as desired

Begin

Rotate the desired pump
Hand-Off-Auto switch to OFF



Move the associated pump
disconnect DOWN to OFF



Move the utility service DOWN to OFF

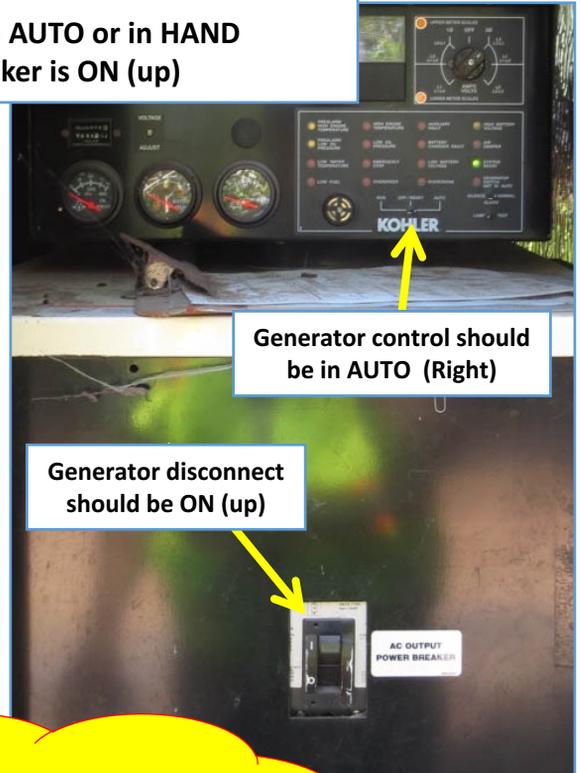


Next

Generator Operation

At this point, the generator should start and transfer over to generator power and be completely independent of utility grid power.

Be sure to verify that the generator is in AUTO or in HAND and that the generator output breaker is ON (up)



If the generator fails to start, or if the transfer switch fails to switch to the EMERGENCY (generator) load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 34 and follow the section: "Transfer Switch – Manual Override"

AS DESIRED:
Enable station systems

Done

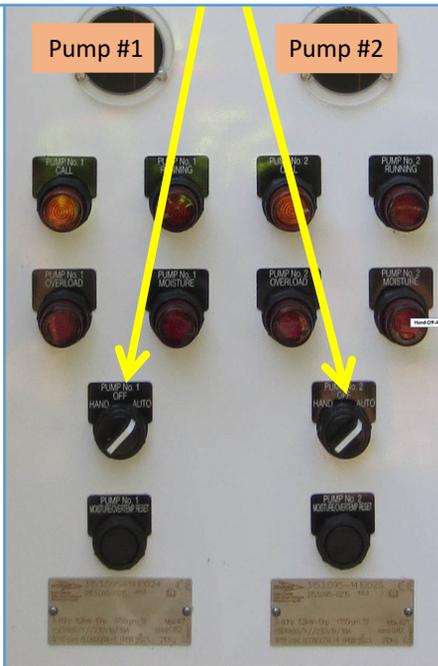
Generator Operation

If utility power is NOT available and/or the generator has not started

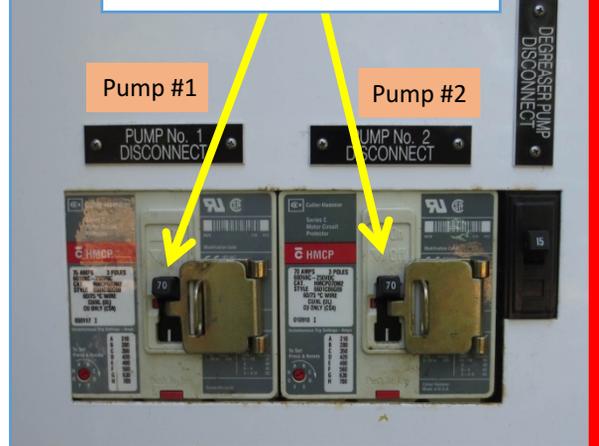
- Reduce the load on the station – Shut pumps off
- Make sure that the generator output breaker is ON & the generator switch is in AUTO
- Enable the pumps as desired

Begin

**Rotate the desired pump
Hand-Off-Auto switch to OFF**



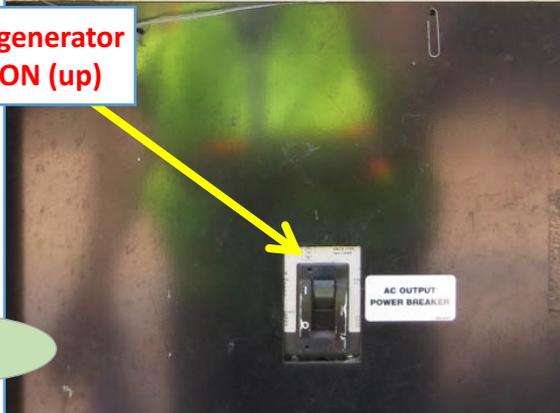
**Move the associated pump
disconnect DOWN to OFF**



**Move the RUN-OFF/Reset-AUTO
switch to AUTO (right)**



**Verify that the generator
disconnect is ON (up)**



Next

Generator Operation

At this point, the generator should start and transfer over to generator power and be completely independent of utility grid power.

If the generator does not start, move the generator HAND-OFF-AUTO control to RUN (left)



If the transfer switch failed to transfer, move the RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 34 and follow the section: "Transfer Switch – Manual Override"

AS DESIRED:
Enable station systems

Done

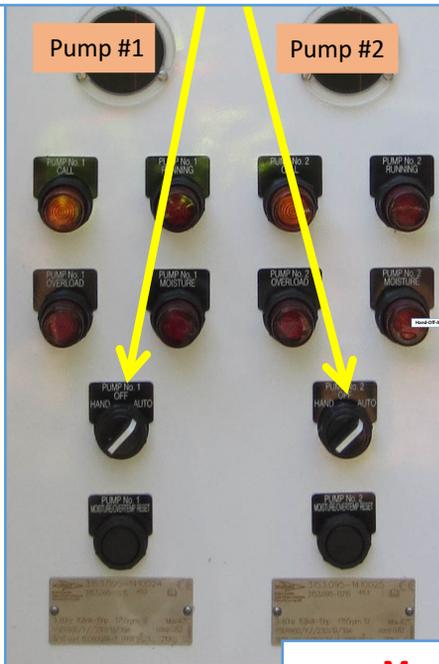
Generator Operation

To return to utility power

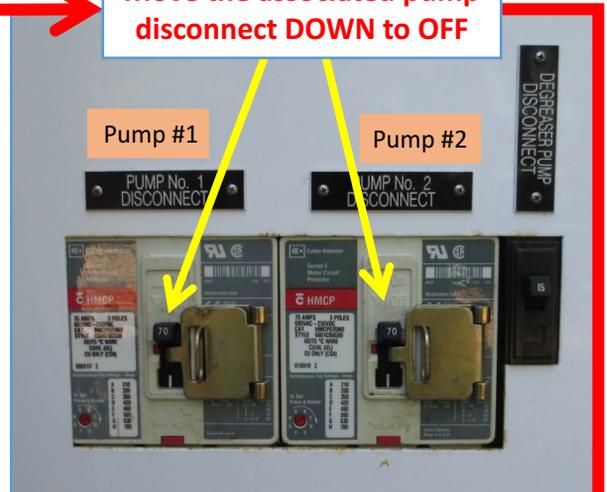
- Reduce the potential load on the station – Shut the pumps off
- Move the main utility service breaker to ON
- *The transfer switch will sense utility power and transfer the station to the utility and then shut the generator down.*
- Enable the pumps as desired

Begin

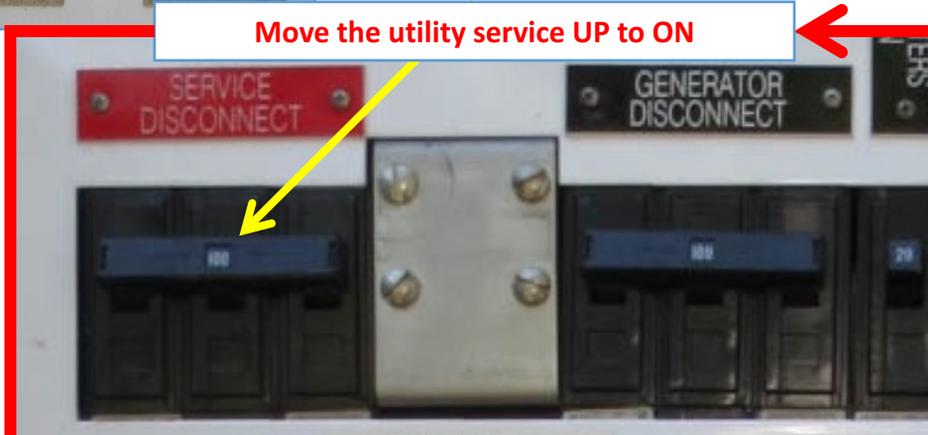
**Rotate the desired pump
Hand-Off-Auto switch to OFF**



**Move the associated pump
disconnect DOWN to OFF**



Move the utility service UP to ON



Next

Generator Operation

When the transfer switch senses utility power, it will initiate the transfer back to utility. The generator will continue to run until the transfer is complete and the engine cool-down period has elapsed, then it shuts down.

At this point, the station will be running on utility power

If the transfer switch fails to switch back to the UTILITY load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 34 and follow the section: "Transfer Switch – Manual Override"

*AS DESIRED:
Enable station systems*

Done

Generator Operation

THE FOLLOWING PROCEDURE SHOULD ONLY BE PERFORMED BY A QUALIFIED ELECTRICAL WORKER & TRAINED ELECTRICIANS

Transfer Switch – Manual Override

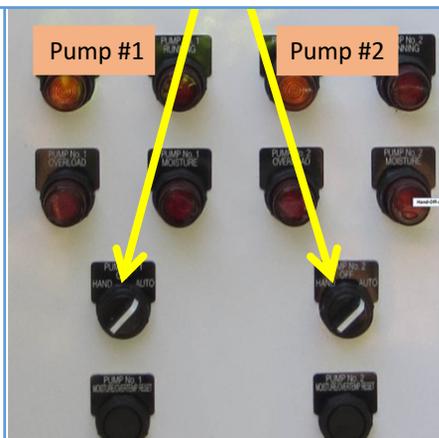
Use extreme caution when working in the transfer switch. Make sure to use all the proper lockout procedures before opening the switch cabinet

Summary: Transfer Switch – Manual Override

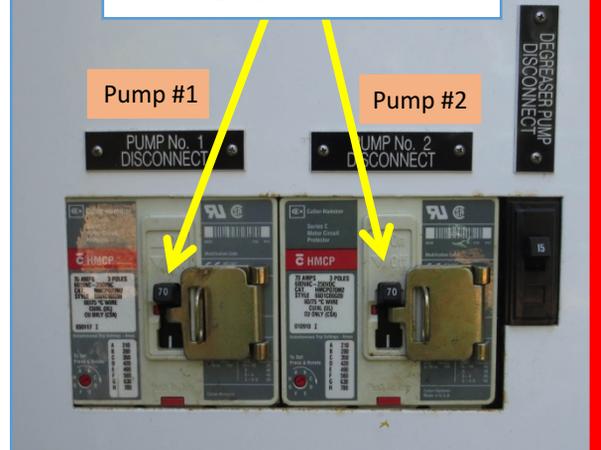
1. Reduce the load from the pump station – shut both pumps off
2. Shut down and disable the generator
3. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
4. Open the transfer switch cabinet & perform a voltage check
5. Manually change the contacts to the desired mode (EMERGENCY or NORMAL)
6. Close the transfer switch cabinet
7. **If transferring to emergency generator power**
 1. Close the generator disconnect (UP to ON)
 2. Move the generator control to RUN
 3. Leave the utility disconnect OPEN (OFF) *to avoid the transfer switch from trying to switch back to utility power*
 4. Enable station systems
8. **If transferring to utility power**
 1. Move the service utility disconnect UP to ON
 2. Enable station systems

Begin

Rotate the BOTH pump Hand-Off-Auto switches to OFF



Move BOTH pump disconnect DOWN to OFF



Next

Generator Operation

At the generator panel, move the RUN – OFF – AUTO switch to OFF (middle)



Move the utility service & generator disconnects DOWN to OFF & install LOTO devices



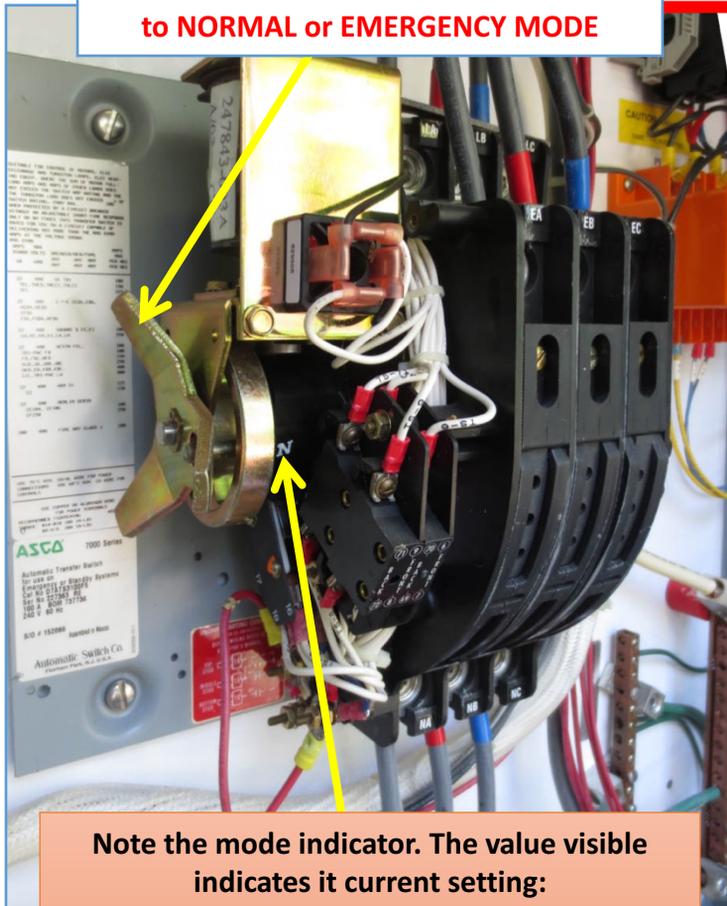
At this point, all electrical power sources have been locked out and work inside the transfer switch can be done



Next

Generator Operation

Rotate the manual switch handle as desired to NORMAL or EMERGENCY MODE



**Note the mode indicator. The value visible indicates its current setting:
N = Normal Utility Power
E = Emergency Generator**

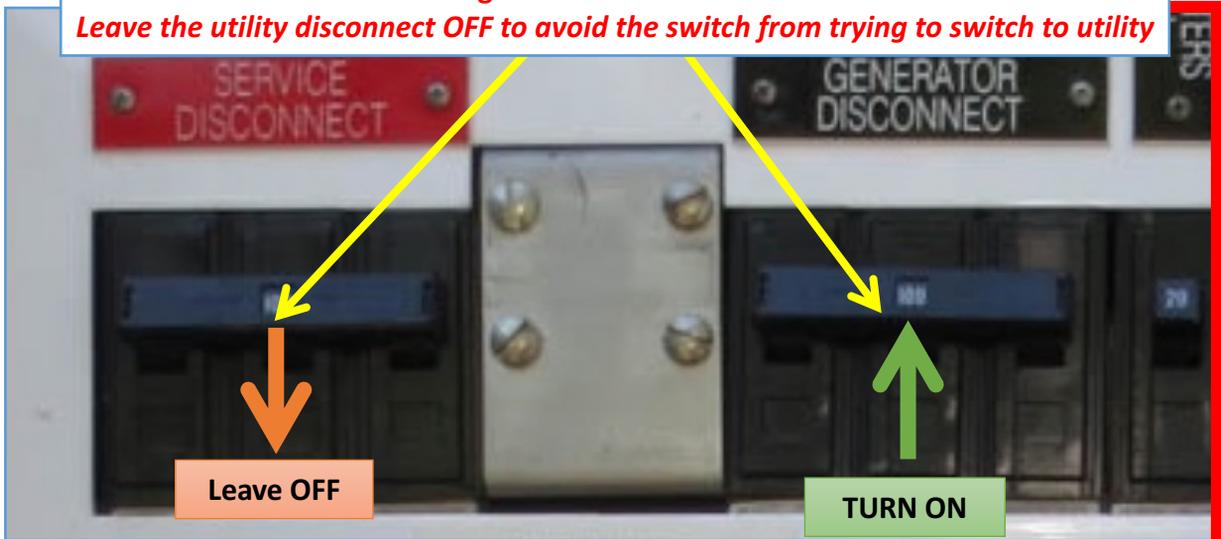
Close and secure the transfer switch cabinet door

Next

Generator Operation

If transferring TO emergency generator power

Move the generator disconnect **UP** to **ON**
Leave the utility disconnect **OFF** to avoid the switch from trying to switch to utility



At the generator panel, move the RUN– OFF/Reset–AUTO switch to **RUN** (left)
The generator should start up at this point



AS DESIRED:
Enable station systems

Done

Generator Operation

If transferring TO utility power

Move the utility disconnect **UP** to **ON**. The generator disconnect may be turned on or left off as desired



Set the RUN– OFF/Reset–AUTO switch to **OFF/RESET** (middle)
This prevents the generator from starting



At this point, the station should be running on **UTILITY** power

AS DESIRED:
Enable station systems

Done

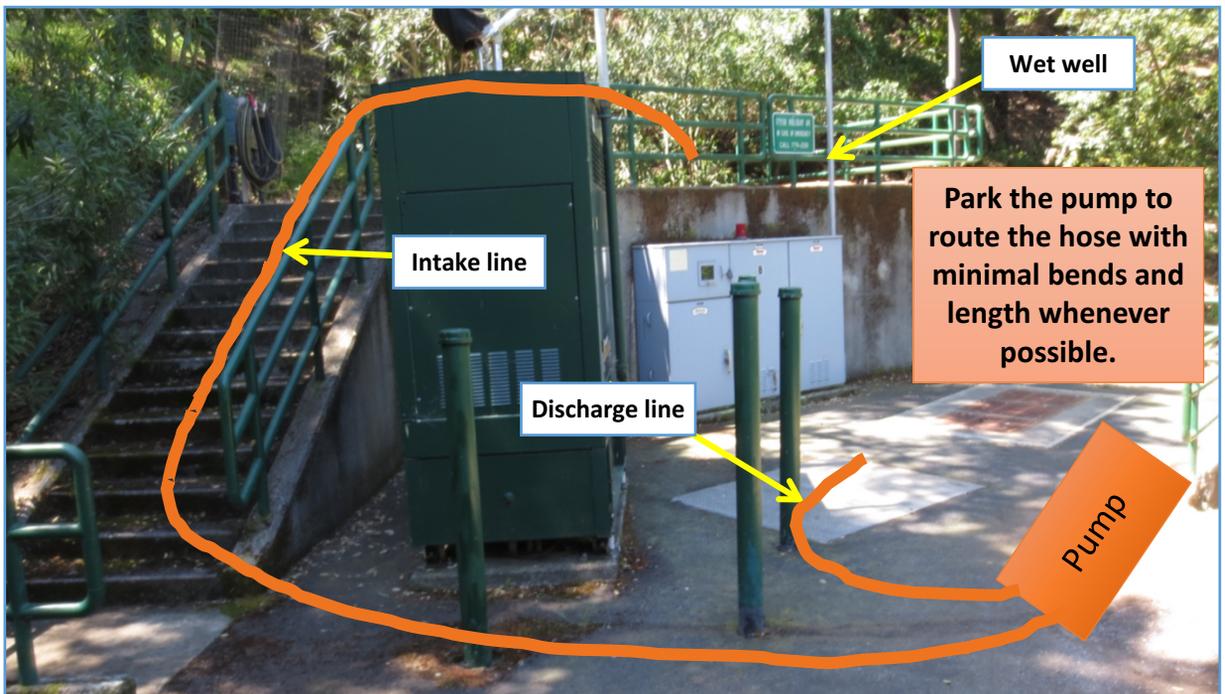
Bypass to Force Main

Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's use SOP for operation & begin bypass pumping
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the valves needed to return to normal operations

Begin Procedure

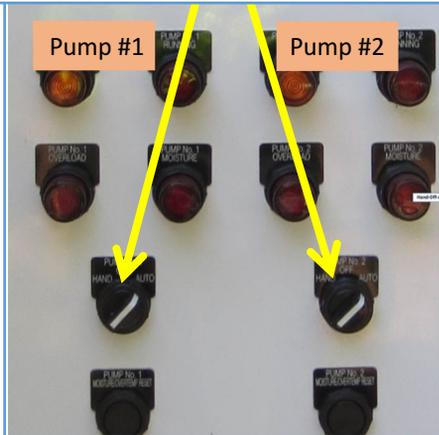


Next

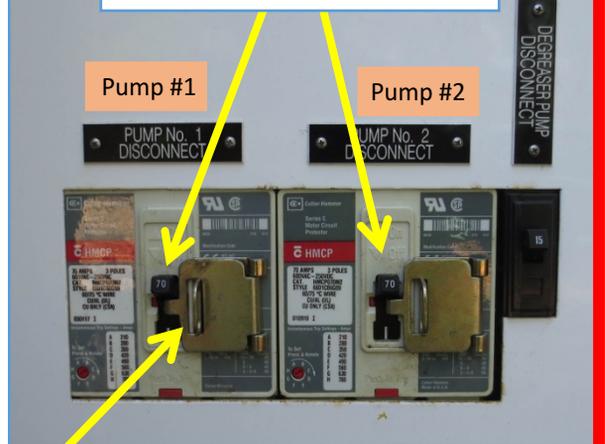
Bypass to Force Main

Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

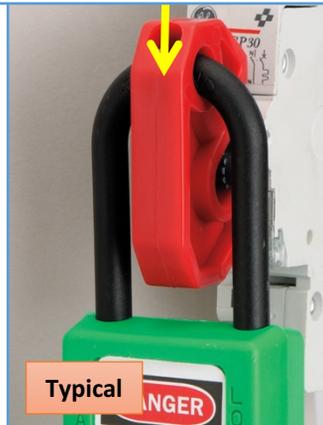
Rotate the desired pump Hand-Off-Auto switch to OFF



Move the associated pump disconnect DOWN to OFF

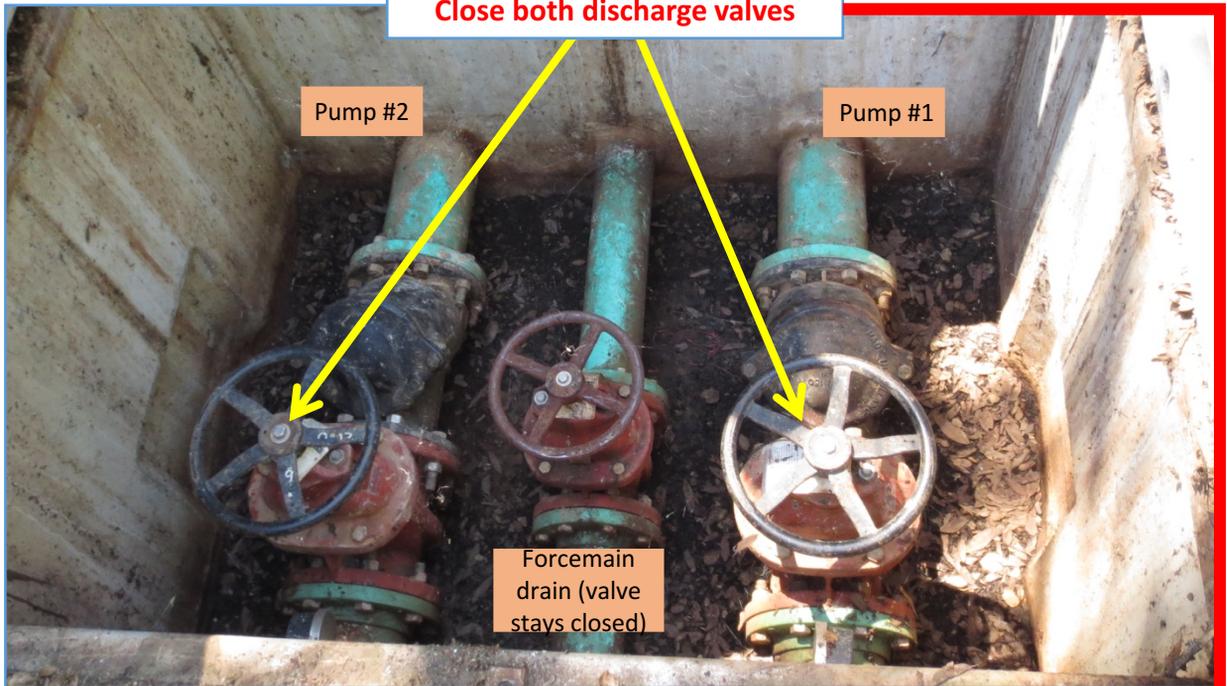


Install a LOTO device on the pump disconnect breaker for the pump that will have it's check valve worked on



Next

Bypass to Force Main



Install LOTO device and tag onto the check valve for the pump that will have it's check valve worked on

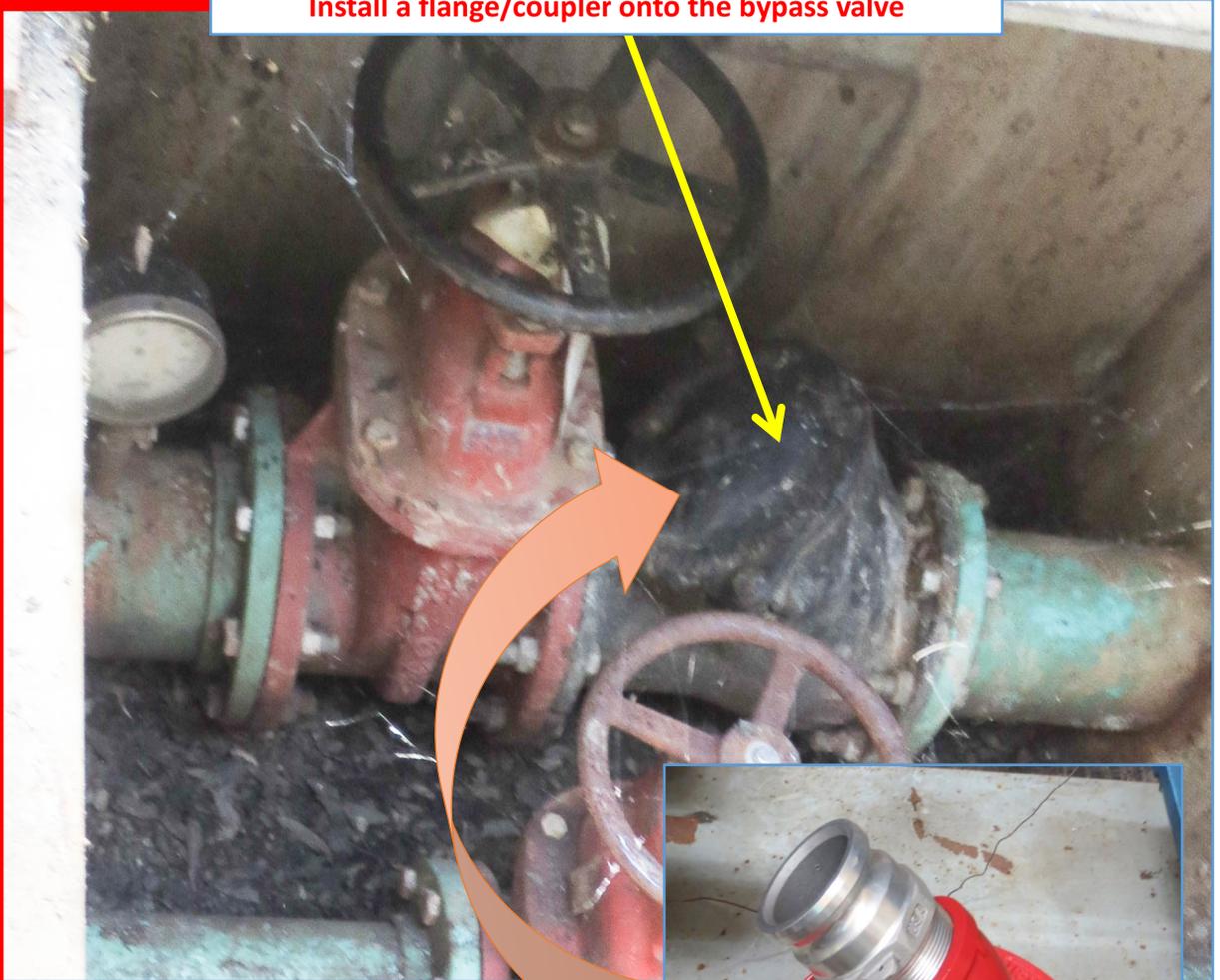
Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!



Next

Bypass to Force Main

Install a flange/coupler onto the bypass valve



Typical check valve-to-bypass port coupler/adapter

Next

Bypass to Force Main

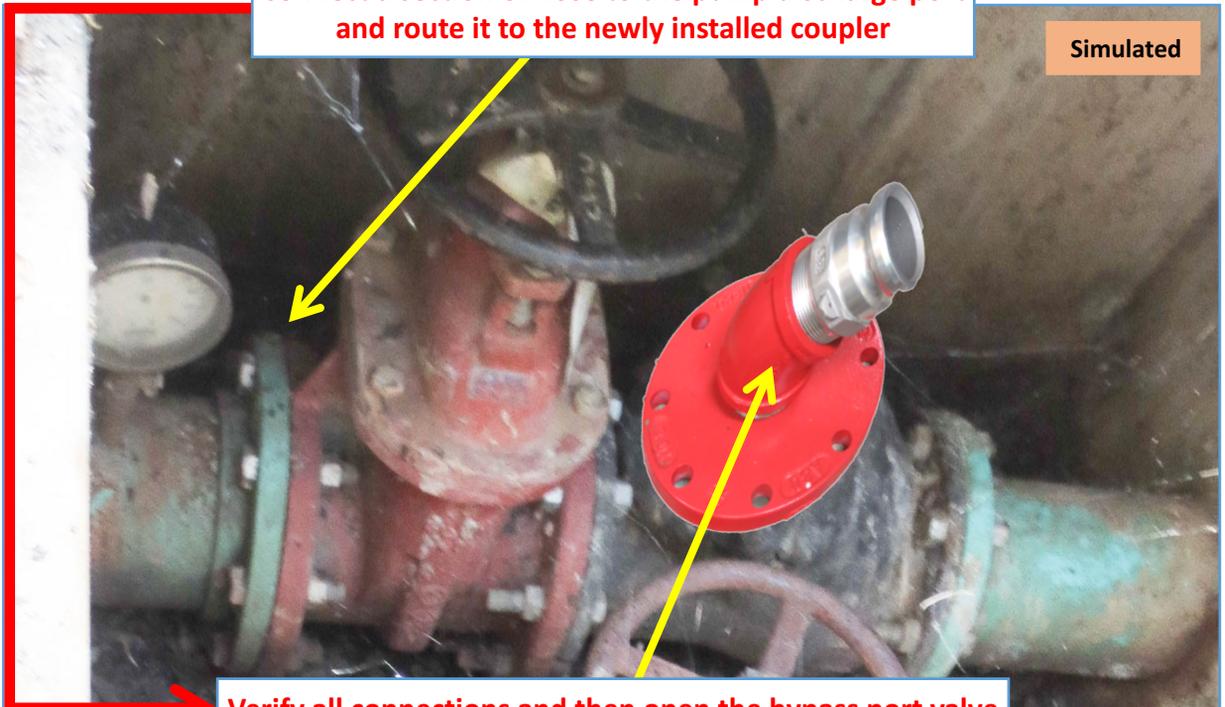
Connect a suction hose with strainer-end to the intake port



Lower the suction hose into the wet well



Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

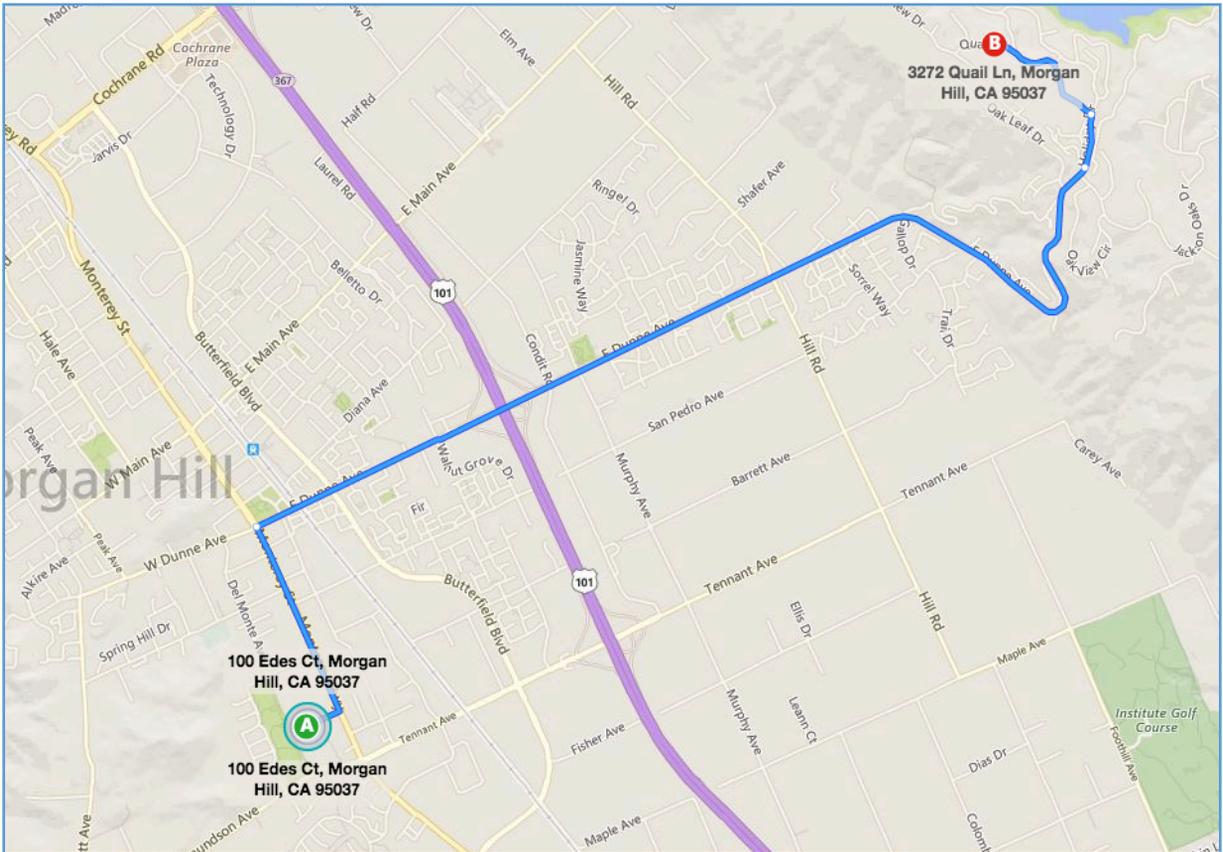


Pump Station PS-C
3272 Quail Lane Pump Station

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	6
Pump Station Network	7
Overflow Decision Tree	8
Spill Notification Procedures	15
Spill Containment	16
Pump Station Power Map	17
Pump Station Control System	18
Lockout/Tagout Procedures	24
Generator Operation	29
Bypass to Force Main	41
Contact Information	47
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Pump Station Technical Information

Name	PS-C - 3272 Quail Lane Pump Station
Address	3272 Quail Lane, Morgan Hill, CA 95037 NOTE: The pump station is not at this location, however the driveway to the pump station is.
Lat., Long.	37.15176, -121.60104
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct toward Monterey St./Monterey Hwy Turn left onto Monterey St/Hwy. Turn right on E Dunne Ave Bear left on Holiday Drive Turn left onto Copper Hill Drive Bear left onto Quail Lane Turn right (North) on the first driveway <ul style="list-style-type: none"> <i>Driveway located between 17202 Quail Ln and 3280 Quail Ln. - - It looks like an regular road -</i> The pump station will be about 500' up the road on the left side



Pump Station Technical Information



Pump Station Technical Information

Station Information

Wet well dimensions & capacity	Tank 1: 12.5' diameter x 10' deep; 9,180 gallons Tank 2: 5' diameter x 12' deep; 1,763 gallons Tank 3: 5' diameter x 8' deep; 1,175 gallons Total Capacity: 12,118 gallons
Est. hold time (dry weather)	4 hours
Low point (likely overflow point)	Pump station wet well Approx. GPS: 37.15176, -121.60104
Upstream pump station(s)	PS-A, PS-B
Downstream pump station	WWTP
Forcemain Data	6" x 544'
Discharge location	37.148311, -121.59913

Pump Capacities

Pump	Motor & Pump	Capacity
#1	Flygt 3153/487, 23hp, 240v 3-phase	387 gpm
#2	Flygt 3153/487, 23hp, 240v 3-phase	387 gpm

Station Power

Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038015
	PG&E Meter #	1009916757
	PG&E Outage Block	50
	Priority	Sewer pump station
Backup Generator	The station is equipped with a KOHLER 80REOZJB 80kw permanently installed backup generator.	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port. however the station may be bypassed by installing an adapter onto one of the check valves.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

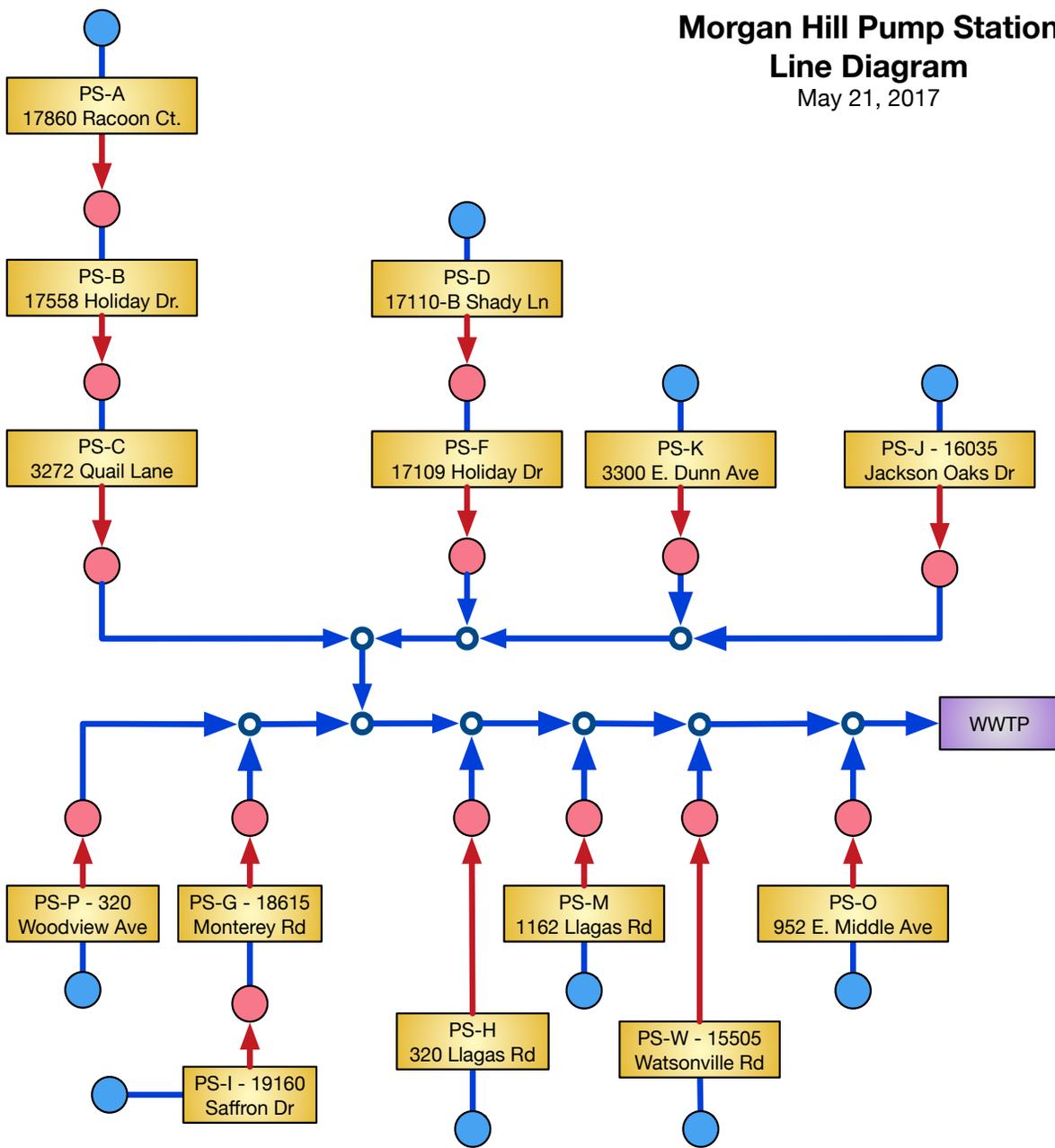
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

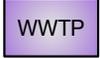
In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

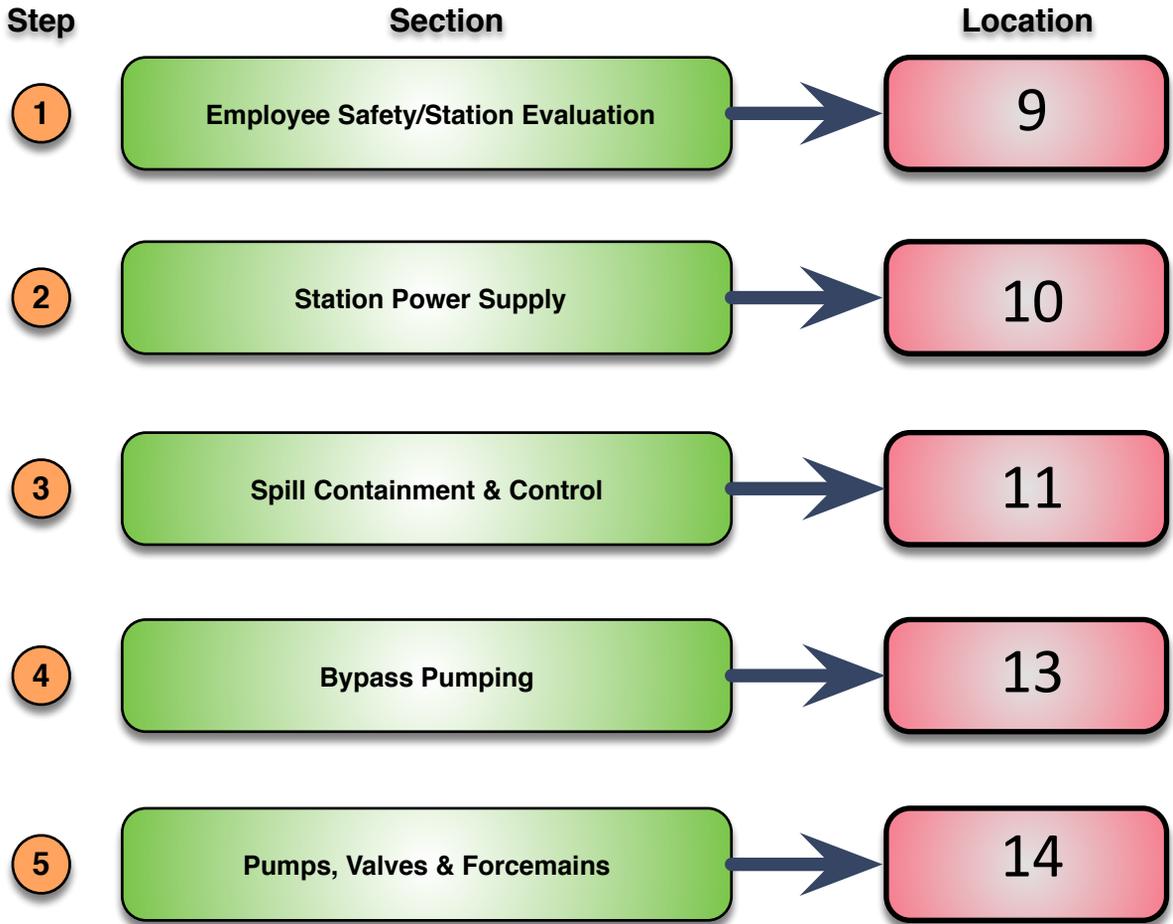
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
	Gravity Feed Only
	Force Main Discharge
	Force Main Junction
	Gravity feed junction (non specific)
	Force main & flow direction
	Gravity line & flow direction
	PS Morgan Hill managed PS
	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide Decision Tree Index

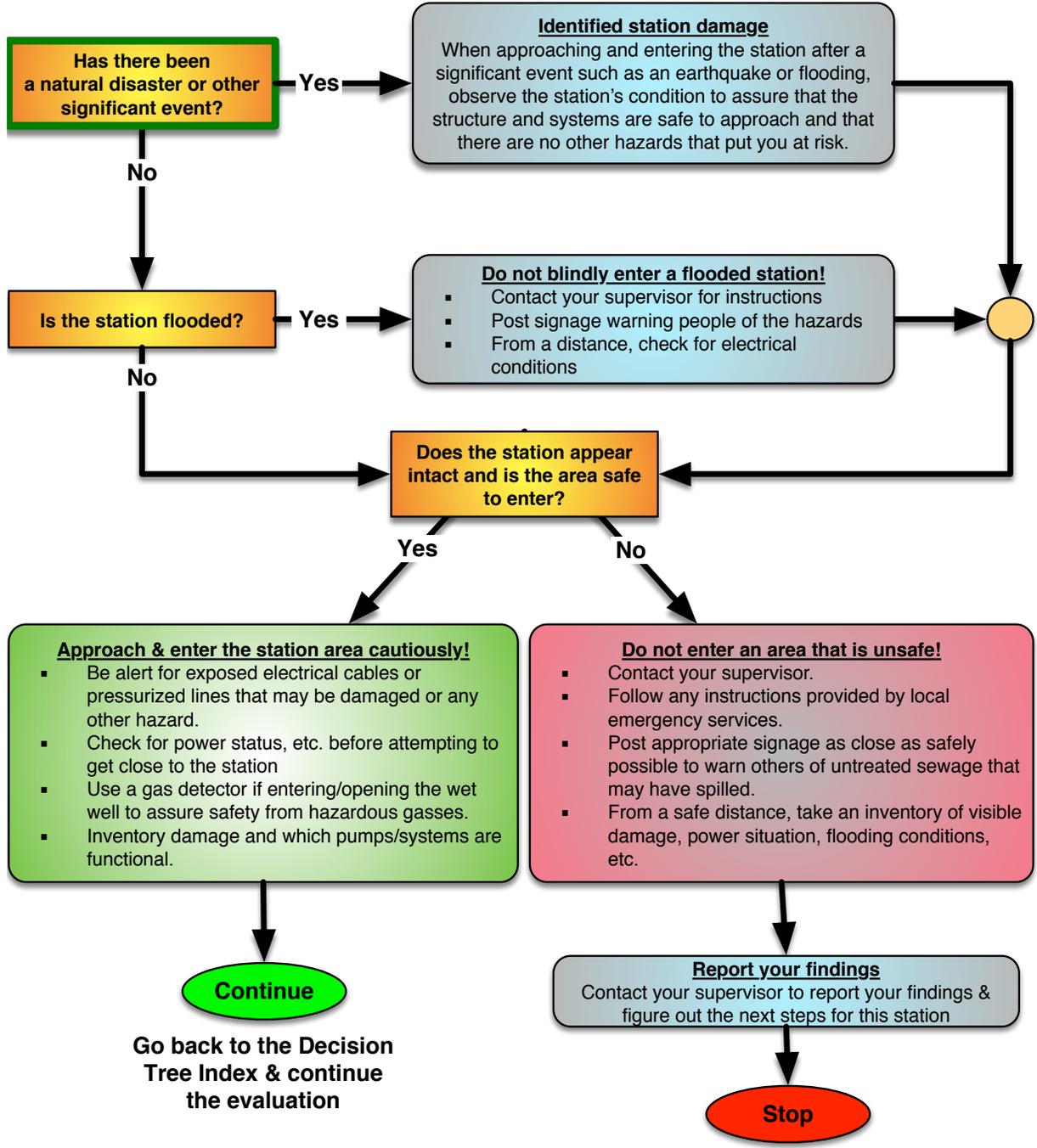


LEGEND

<p> Initial Question</p> <p> Page-To-Page Link</p> <p> Sequence Merge (Watch arrows for flow direction)</p>	<p> Decision Point</p> <p> Task/Direction Item</p>
--	--

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

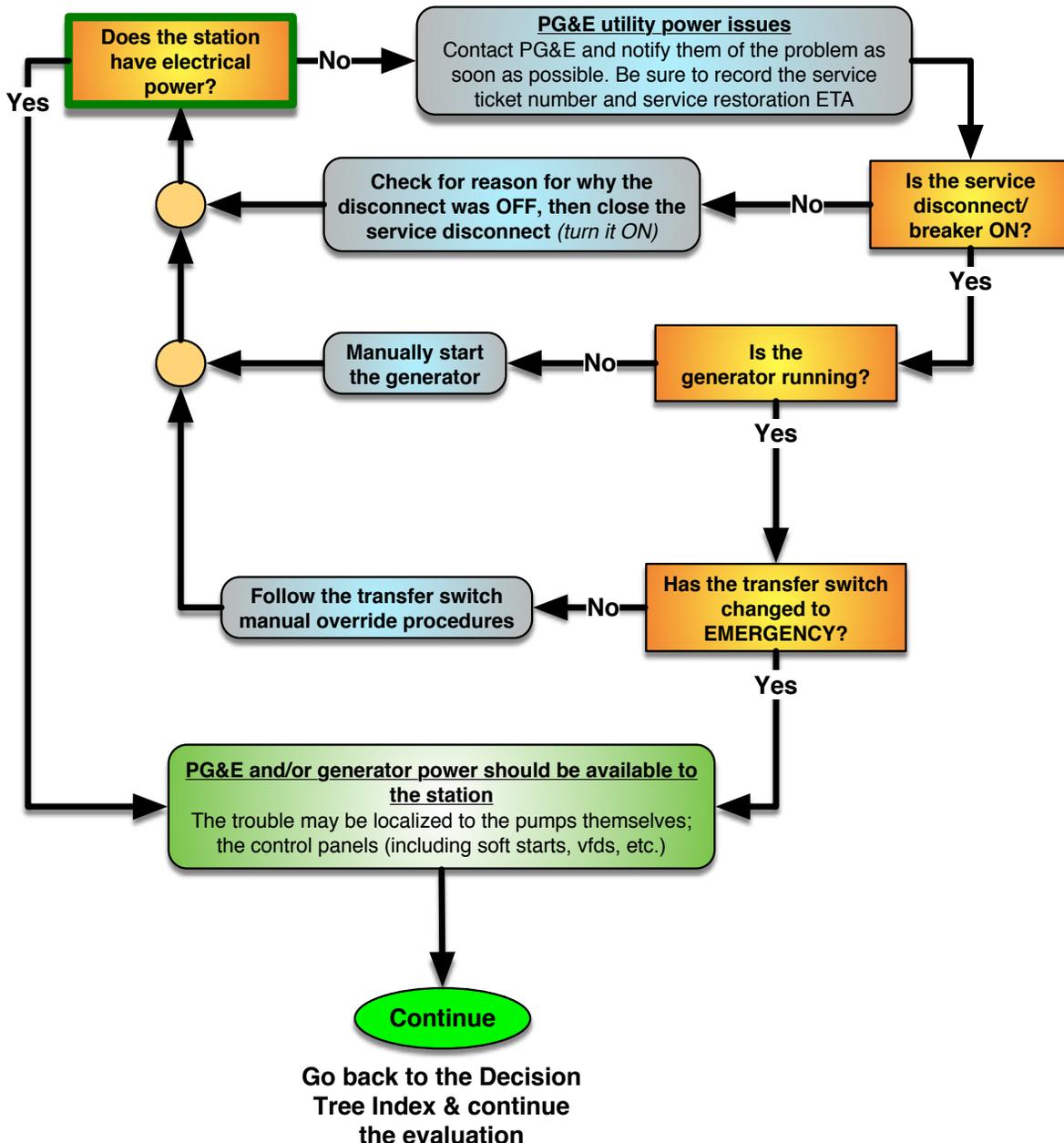


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

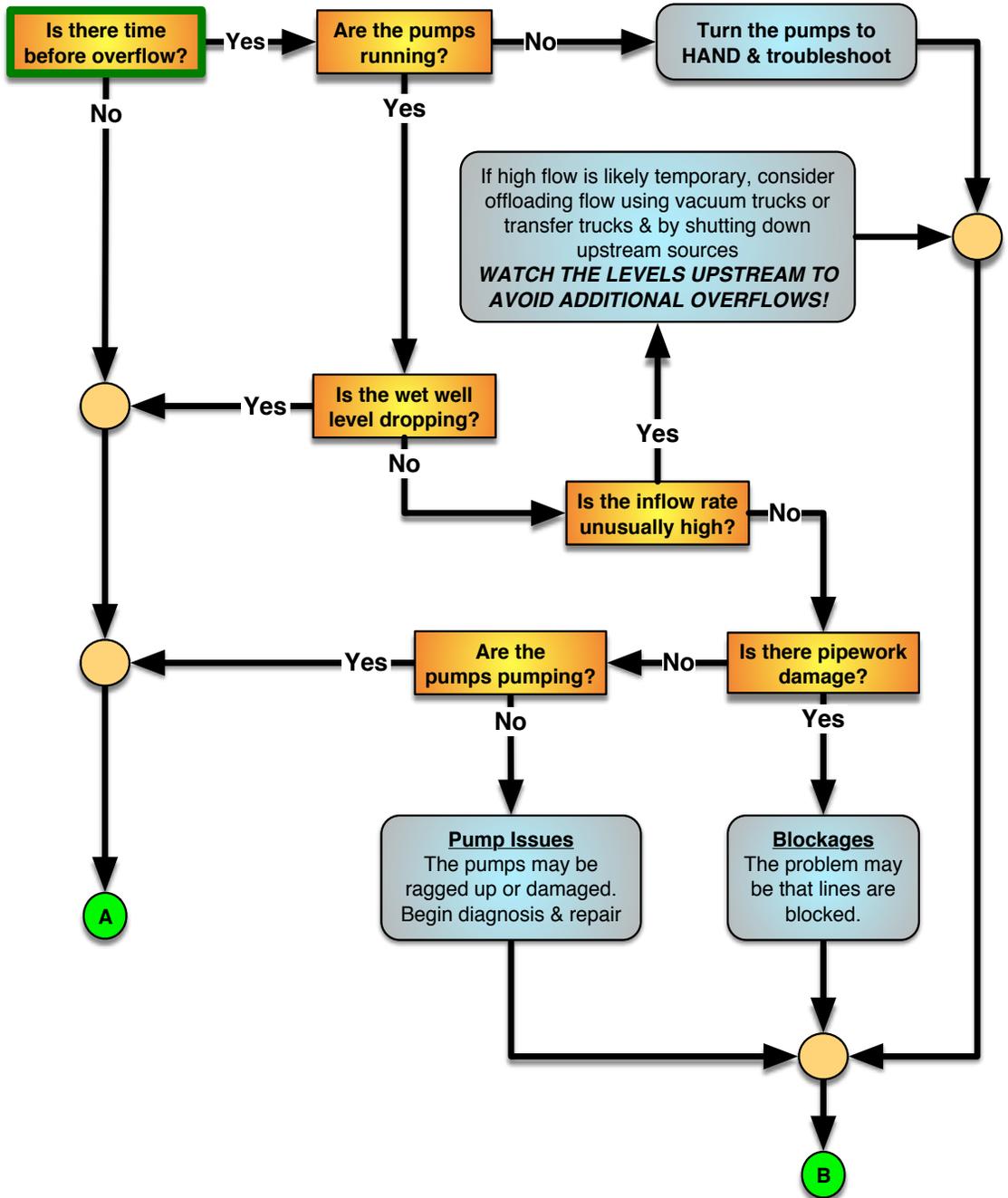
2 Pump Station Emergency Response Guide Station Power Supply



LEGEND ? Initial Question X Page-To-Page ○ Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

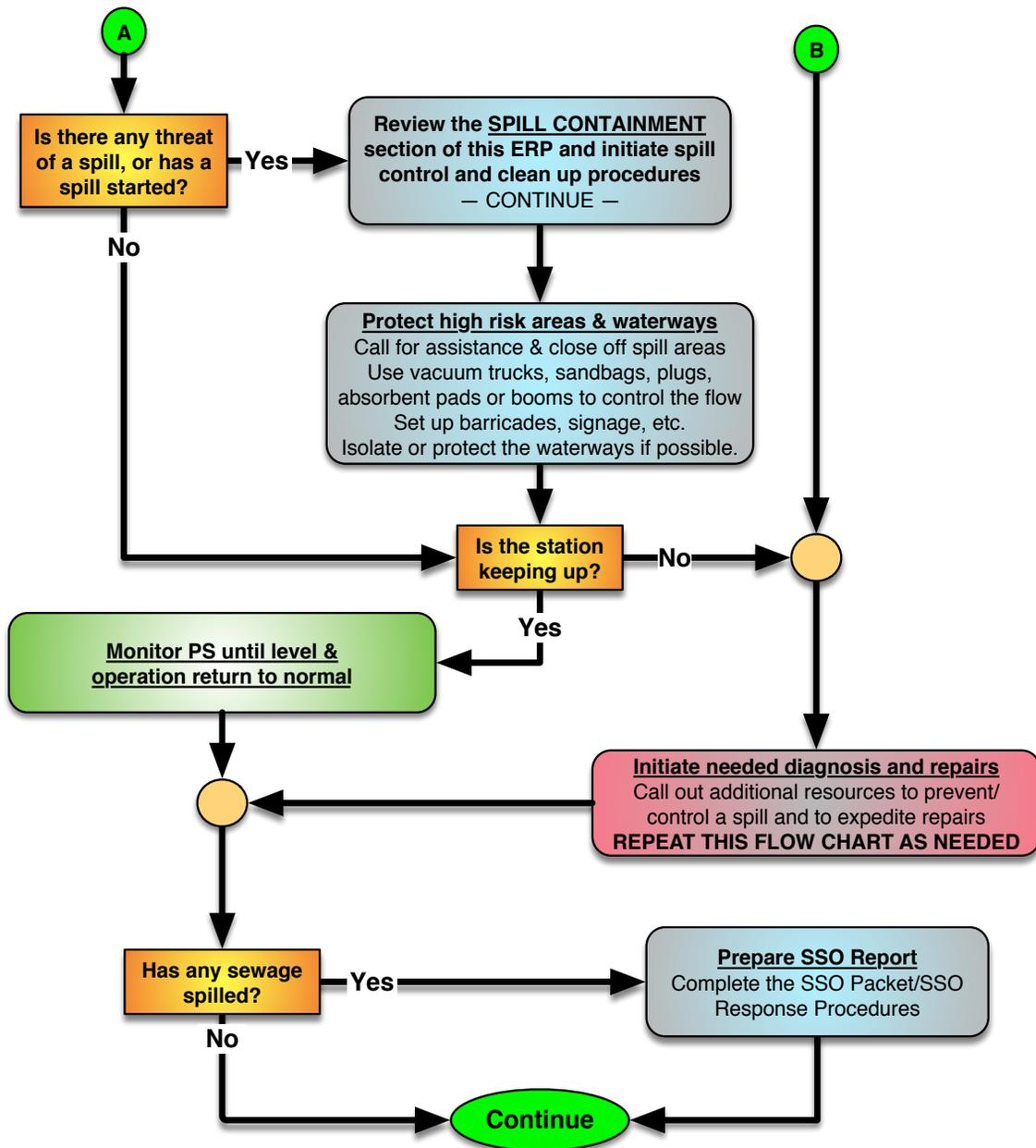
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ● Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - *Continued*



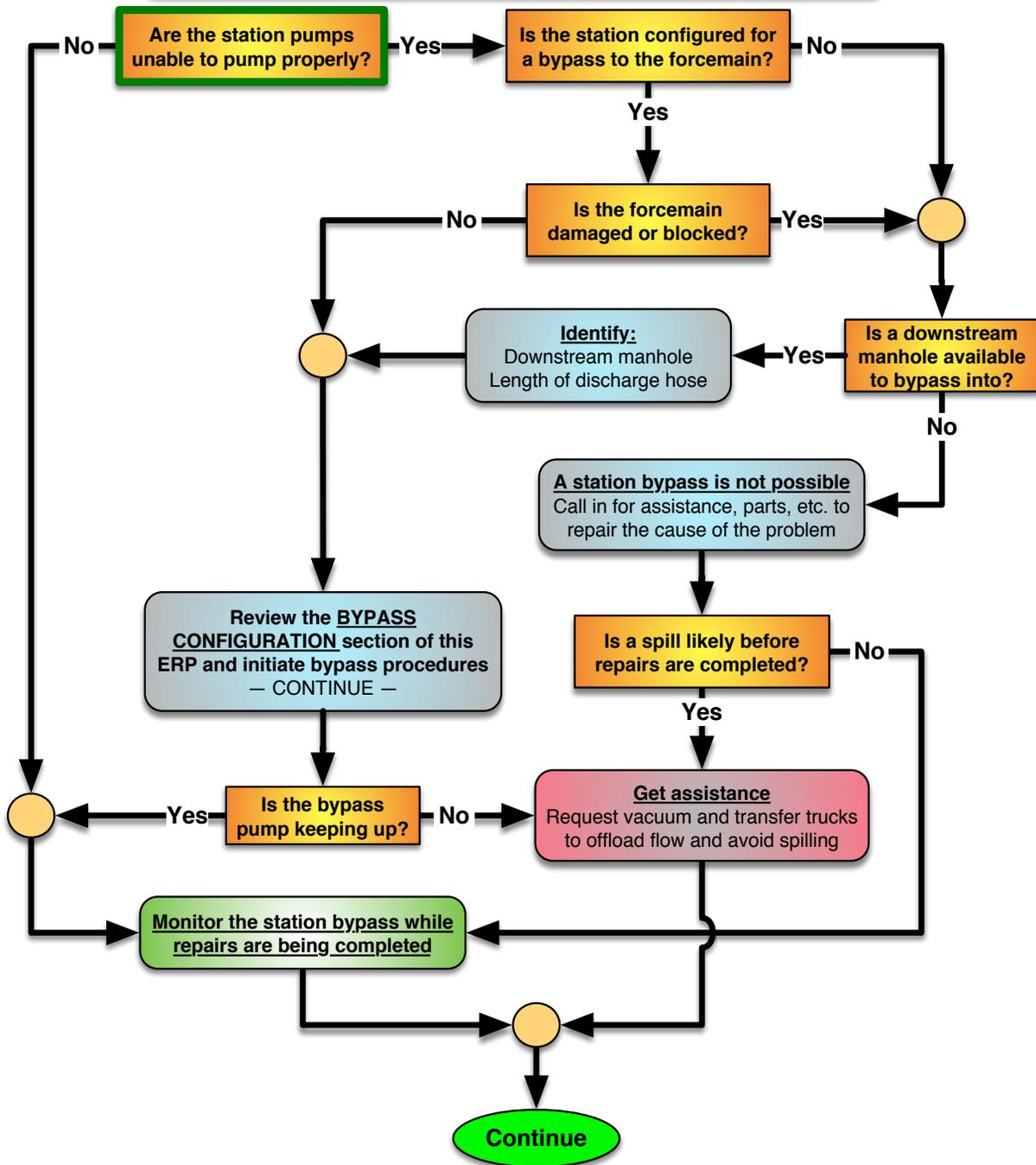
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



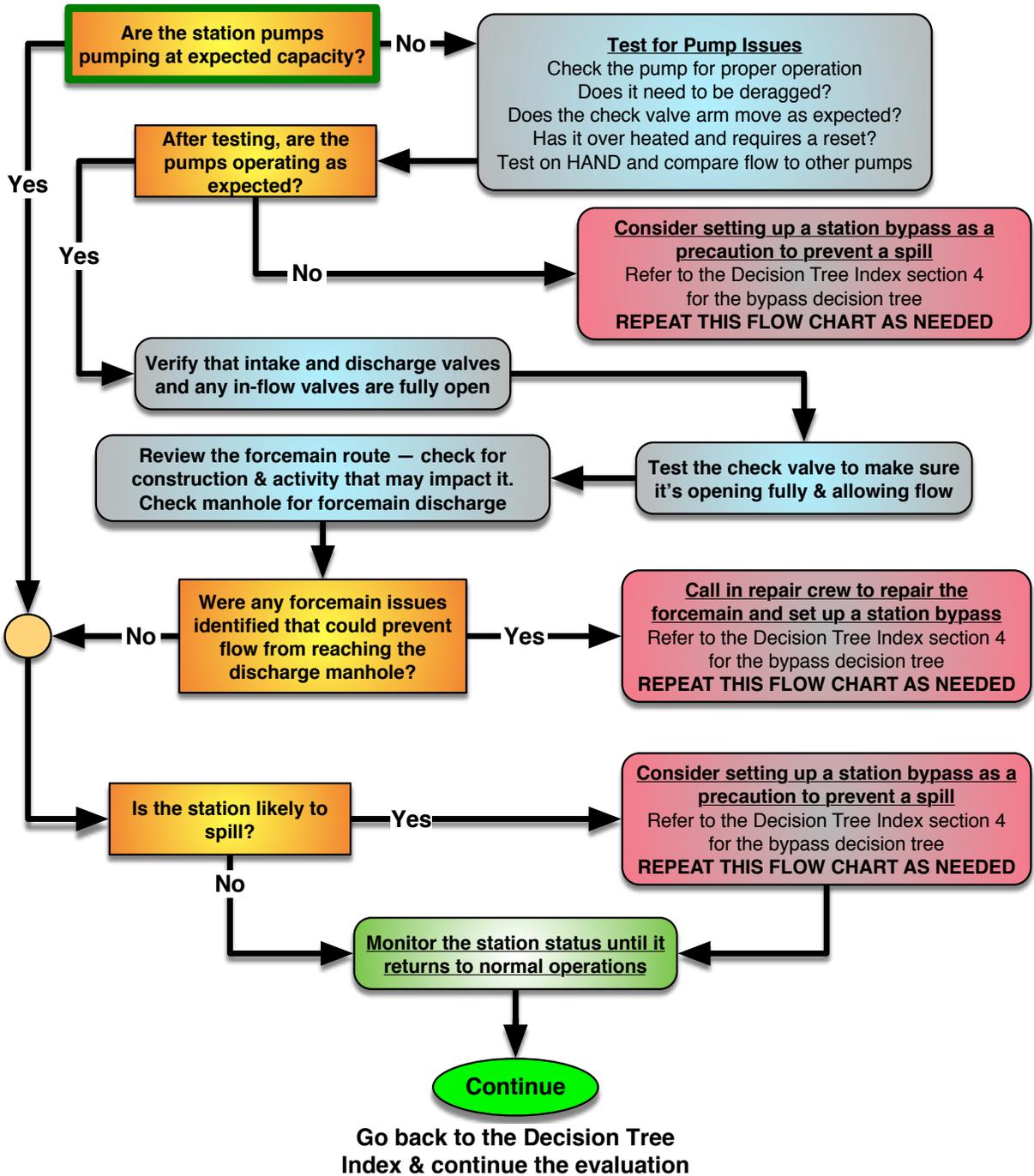
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5 Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND



Initial Question



Page-To-Page



Sequence Merge



Decision Point



Task/Direction Item

Spill Notification Procedures

Pump Station C is located in the Jurisdiction of the
San Francisco Bay Regional Water Control Board (#2)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

**See the Contact Information Section for contact information
Page 47**

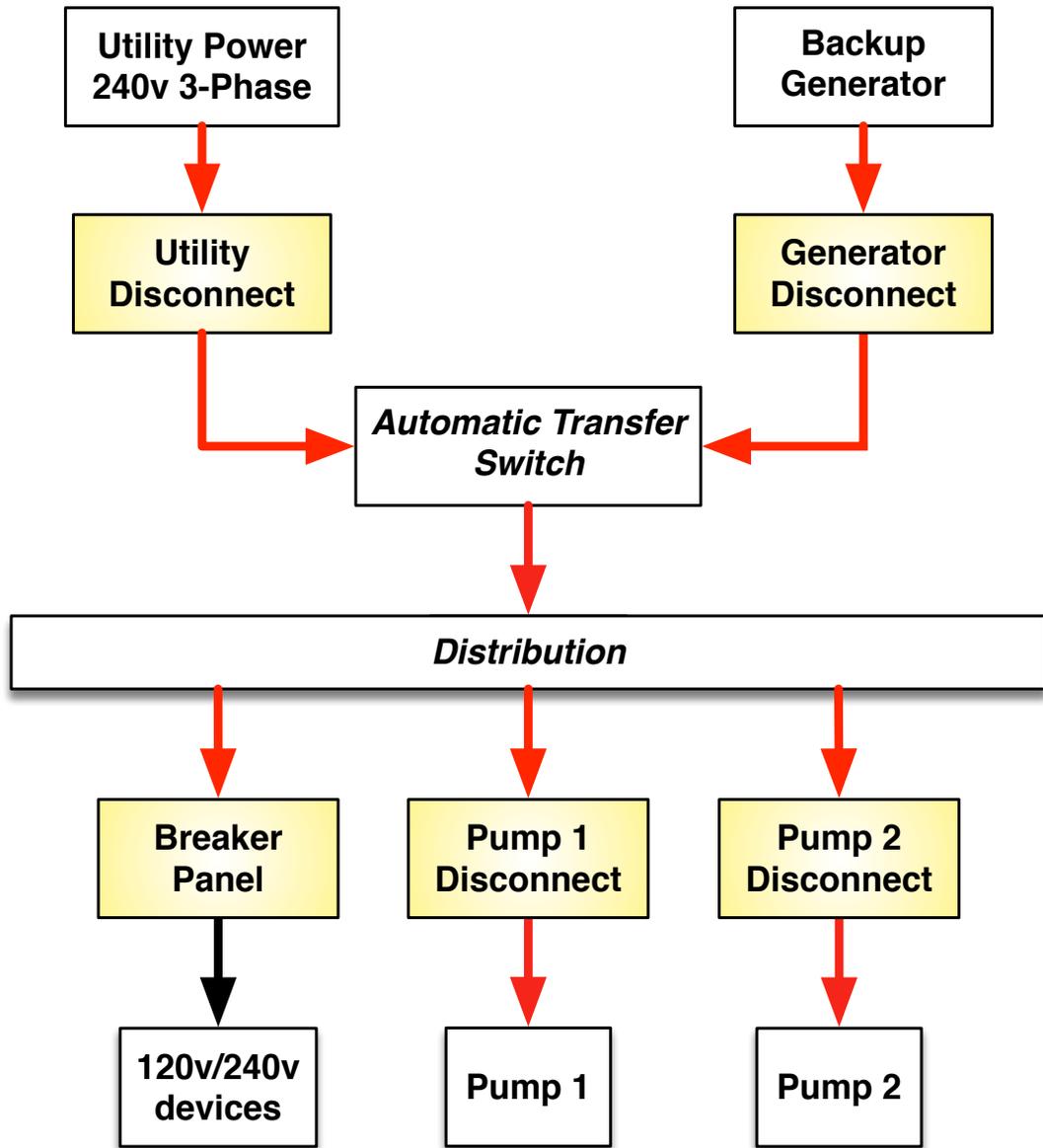
Spill Containment



Potential SSO Impact on State Water

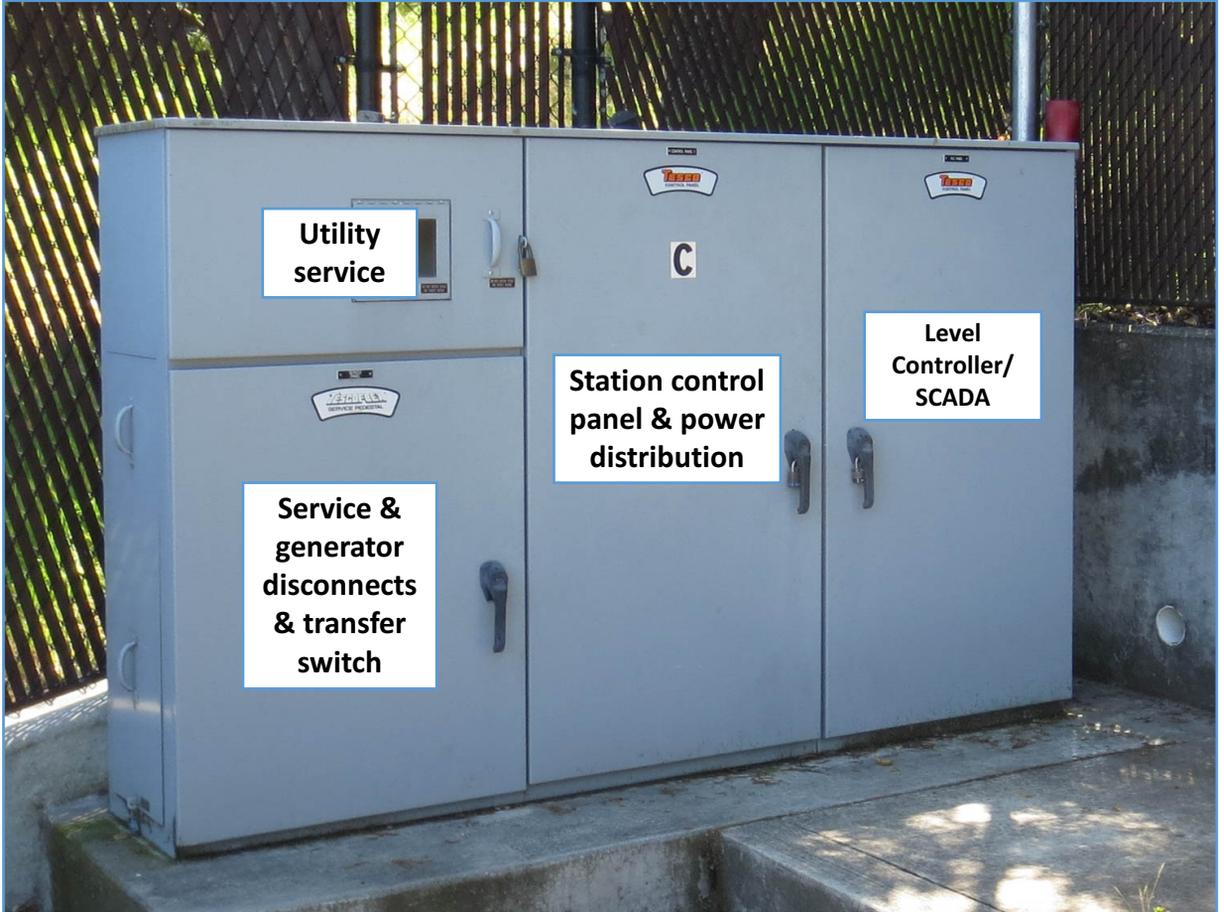
	Type	Position from low point	Containment
1	Pump station	20'	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low point	-	
3	Hillside	~30'	
4	<i>Expected flow direction from system low point</i>		

Pump Station Power Map



Done

Pump Station Control System



Next

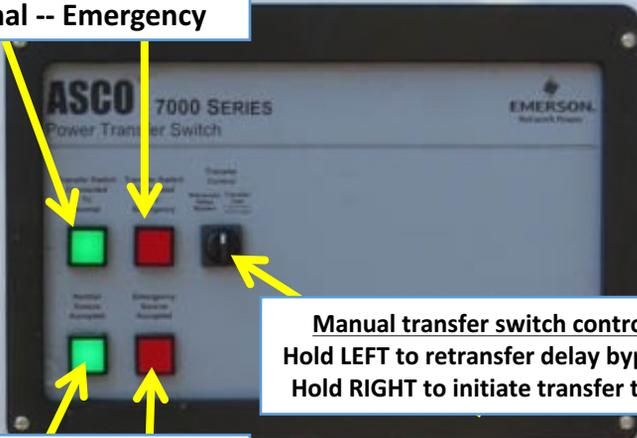
Pump Station Control System

Utility service disconnect



Service & generator disconnects & transfer switch panel

Transfer switch setting
Normal -- Emergency



Manual transfer switch control
Hold LEFT to retransfer delay bypass
Hold RIGHT to initiate transfer test

Power monitor



Transfer switch position
Normal -- Emergency

Transfer switch interface

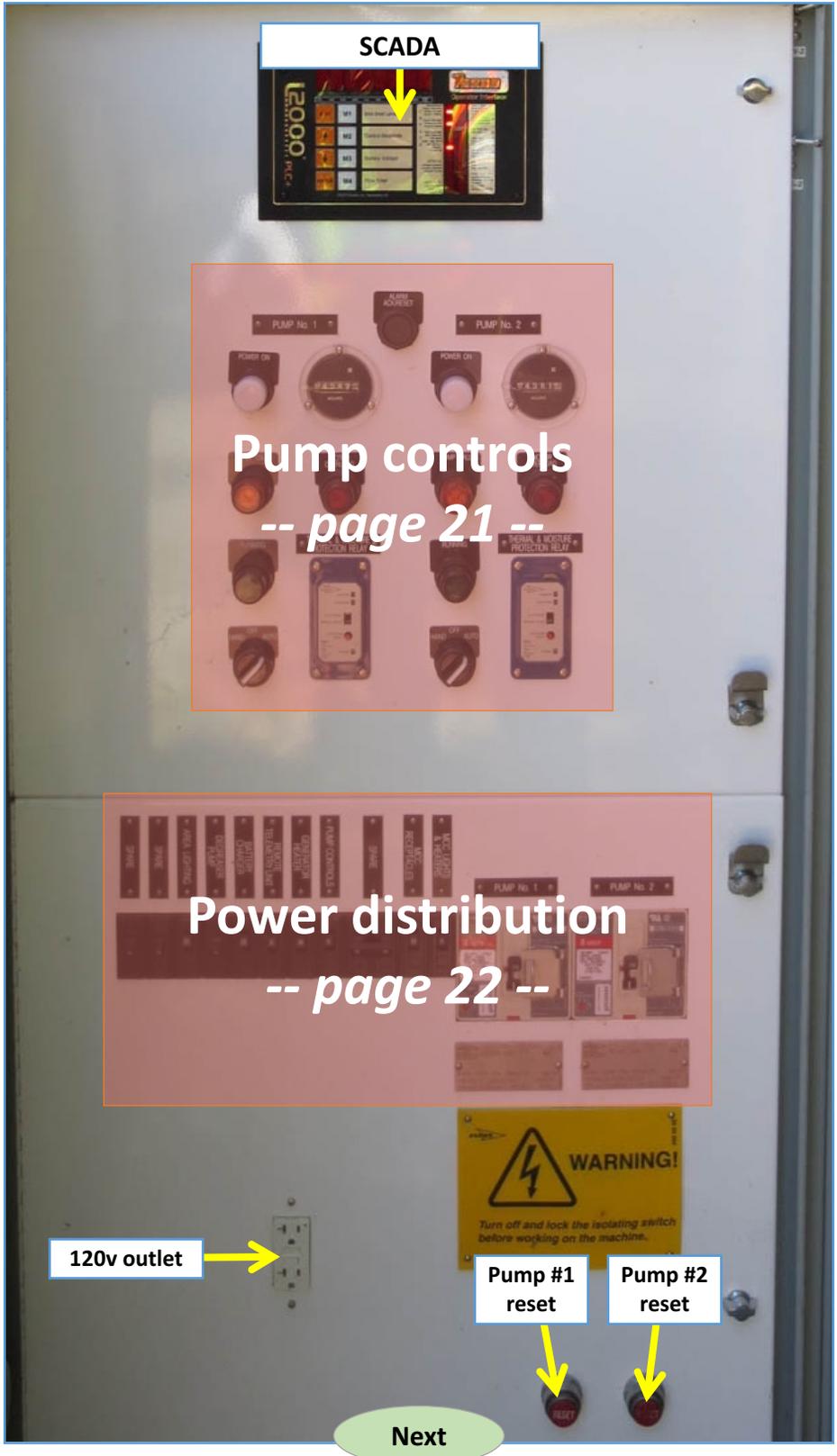


Generator disconnect



Next

Pump Station Control System



SCADA

Pump controls
-- page 21 --

Power distribution
-- page 22 --

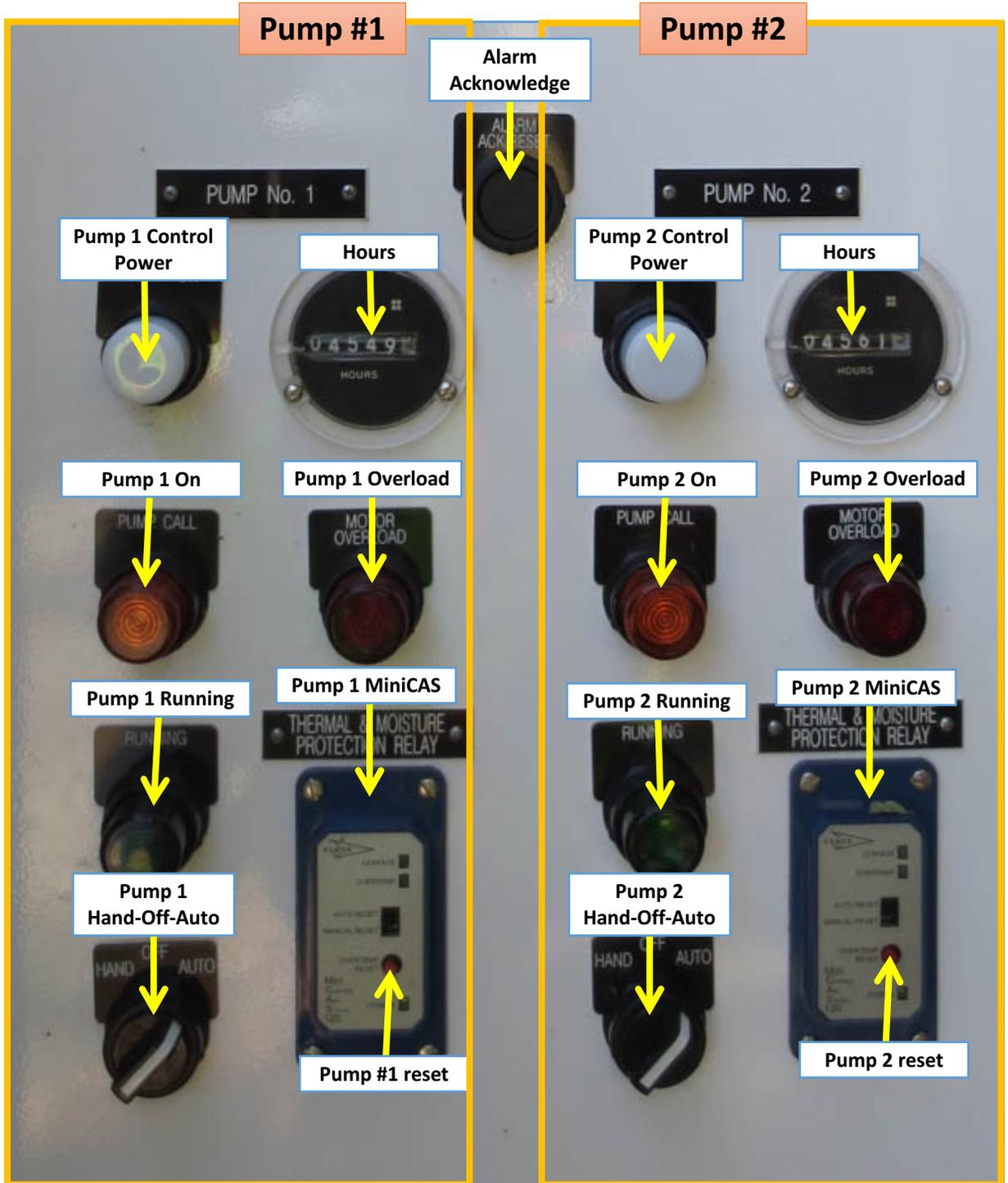
120v outlet

Pump #1 reset

Pump #2 reset

Next

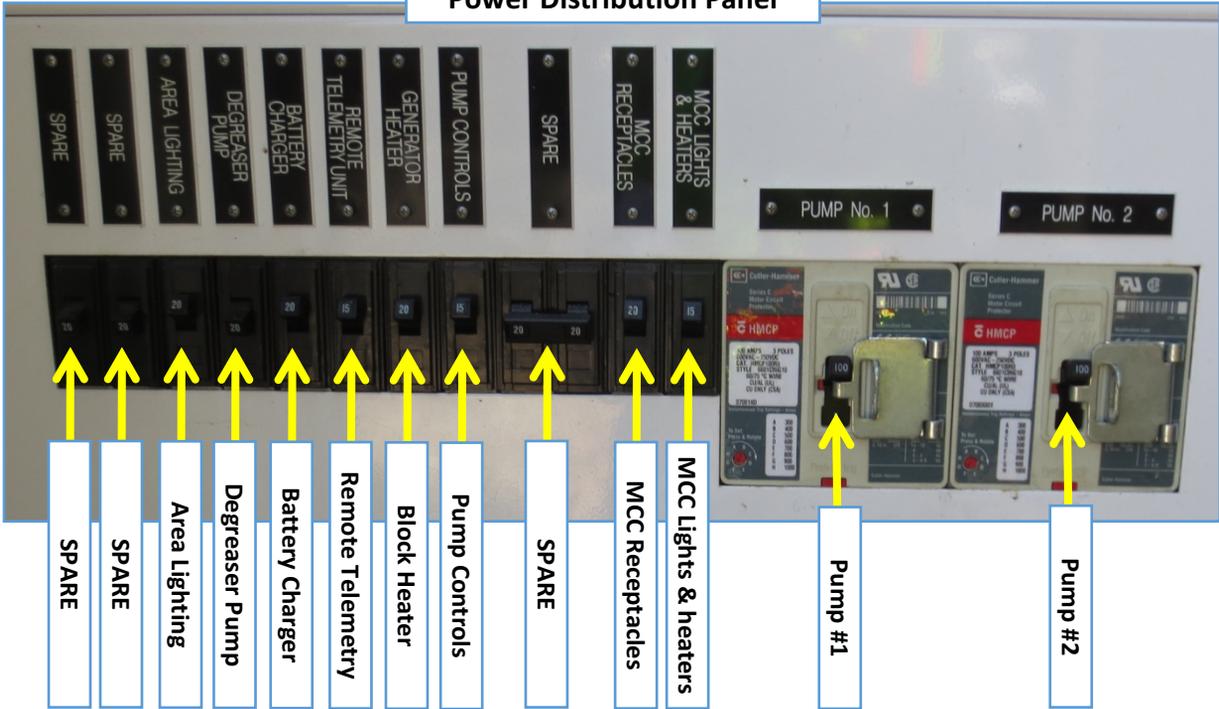
Pump Station Control System



Next

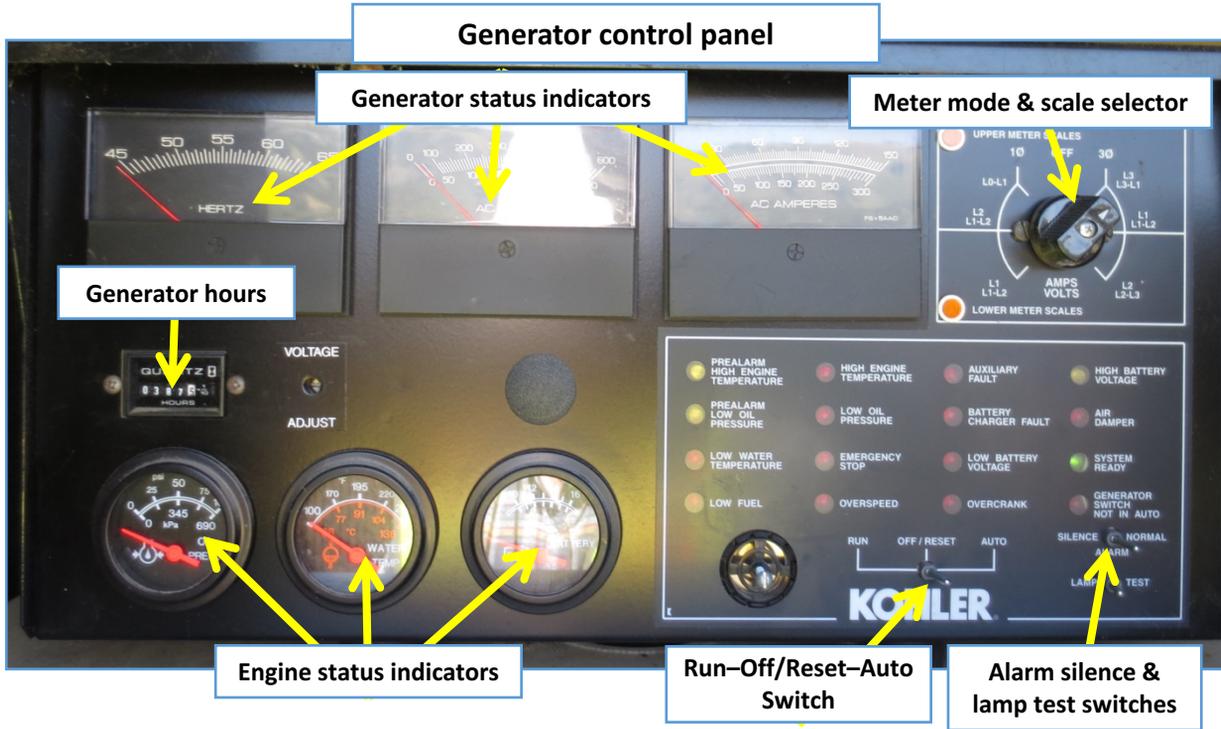
Pump Station Control System

Power Distribution Panel



Next

Pump Station Control System



Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

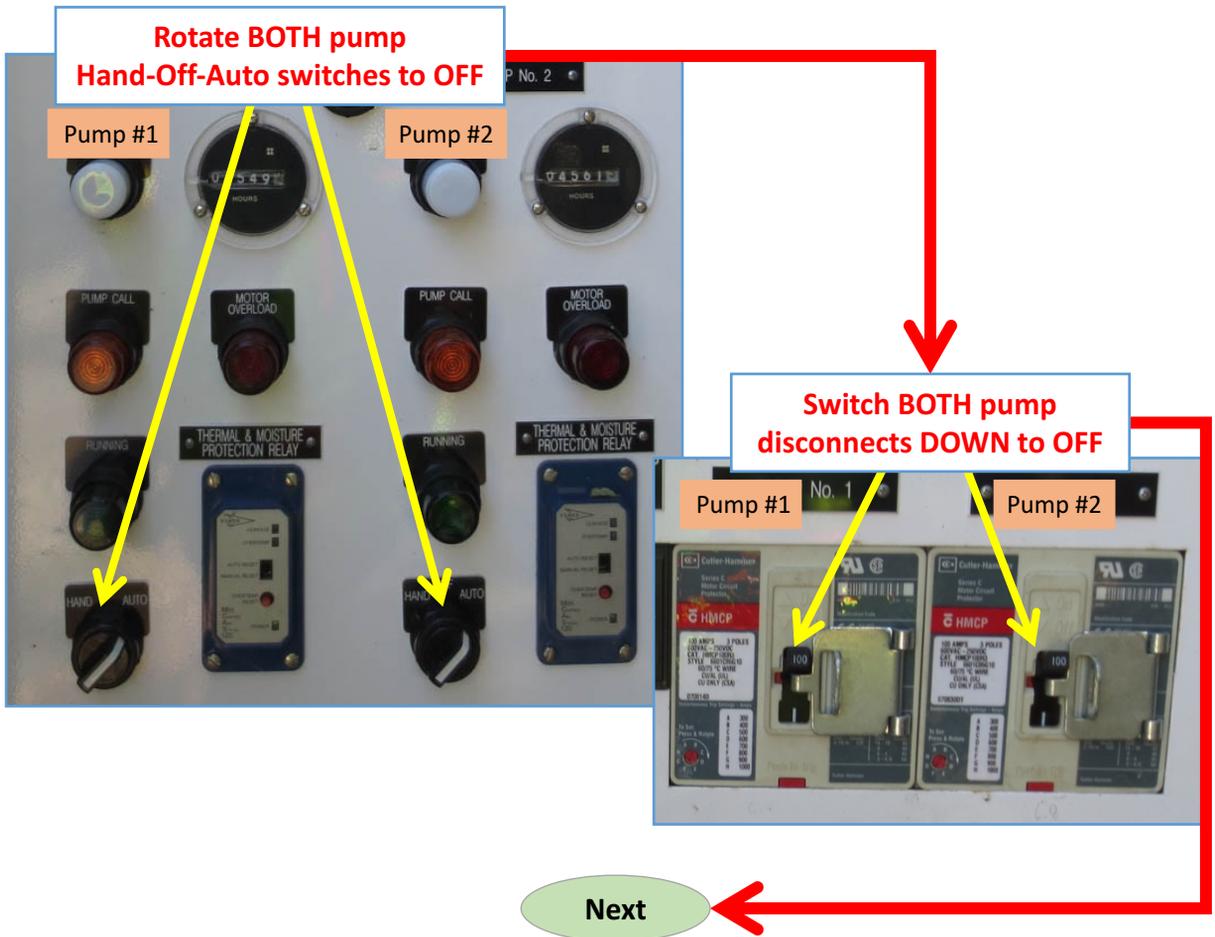
The pump station has power provided by the electrical utility and by an automatic backup generator. Care must be taken to disable all energy sources.

Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down and disable the generator
4. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
5. Test for voltage at the work location

Begin



Lockout/Tagout Procedures

At the generator panel, move the RUN – OFF – AUTO switch to OFF (middle), then move the generator disconnect down to OFF



Move the utility service & generator disconnects DOWN to OFF & install LOTO devices



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done



Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

On control panel for desired pump

1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel

Rotate the desired pump Hand-Off-Auto switch to OFF

Move the associated pump disconnect DOWN to OFF

Install a LOTO device on the pump disconnect breaker lockout tab

**Pump #1 shown
Pump #2 is identical**

Typical

Next

Lockout/Tagout Procedures

Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

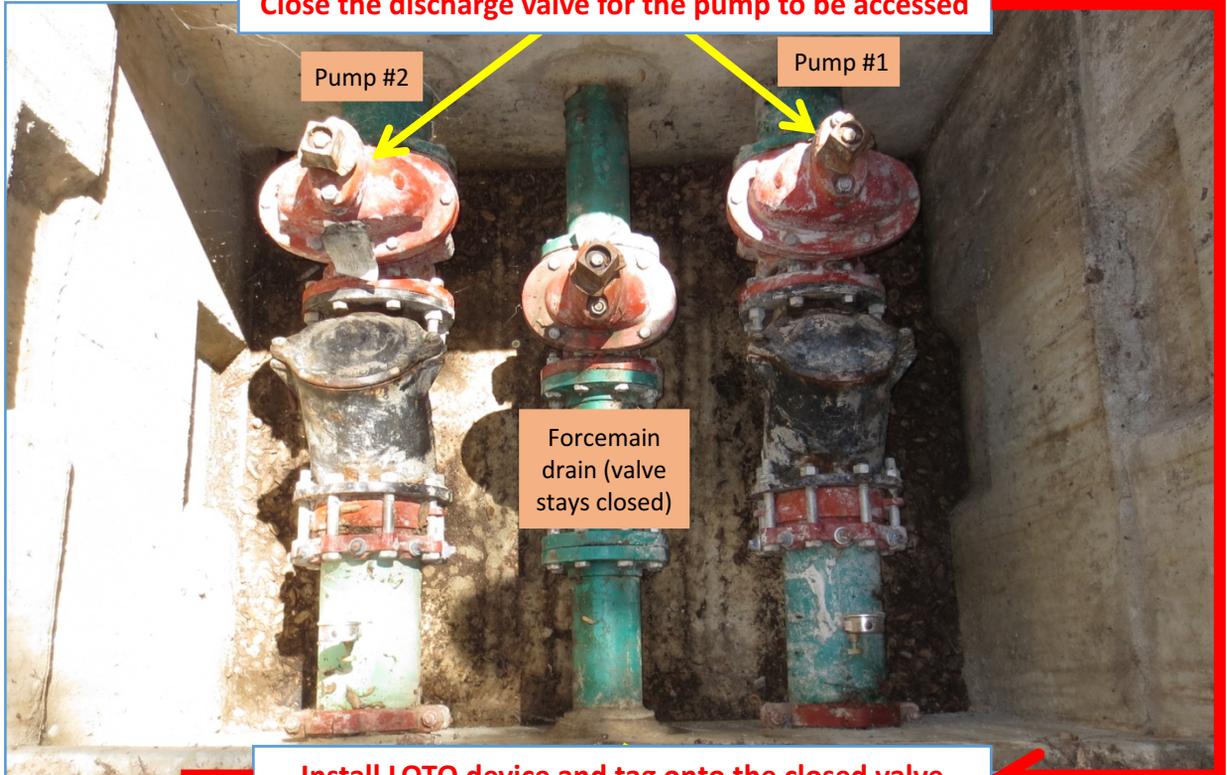
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve

Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!



Done

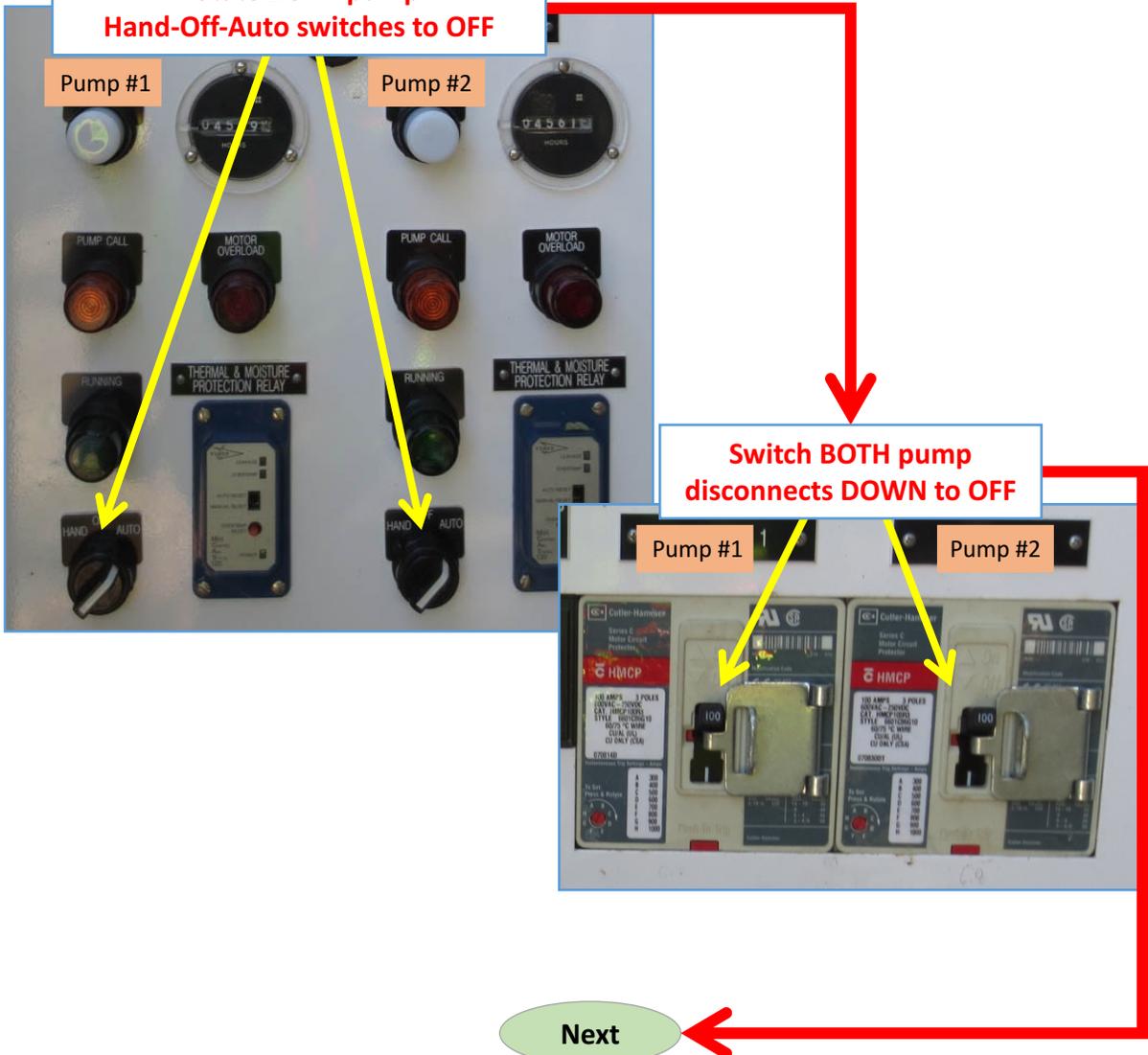
Generator Operation

If utility power is available

- Reduce the load on the station – Shut pumps off
- Shut the service disconnect off – *If the automatic transfer switch is operating properly, the generator should start and power the station.*
- Make sure that the generator output breaker is ON & the generator switch is in AUTO
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



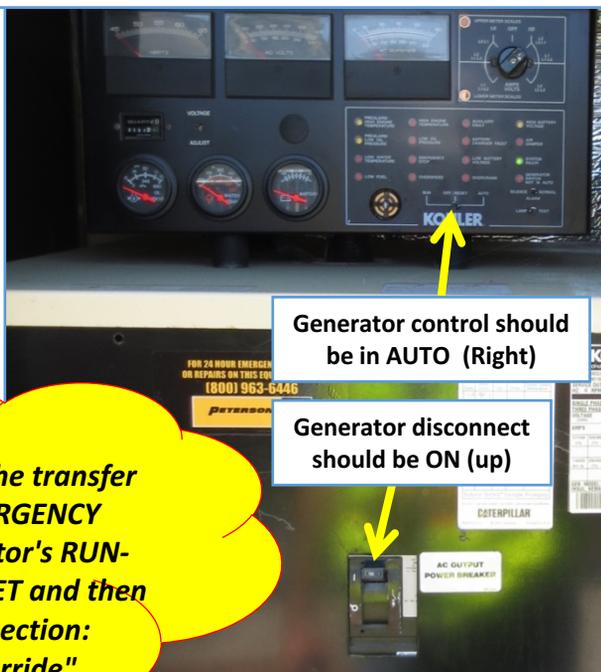
Generator Operation

Move the utility service
DOWN to OFF



At this point, the generator should start and transfer over to generator power and be completely independent of utility grid power.

Be sure to verify that the generator is in AUTO or in HAND and that the generator output breaker is ON (up)



Generator control should be in AUTO (Right)

Generator disconnect should be ON (up)

If the generator fails to start, or if the transfer switch fails to switch to the EMERGENCY (generator) load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 35 and follow the section: "Transfer Switch – Manual Override"

AS DESIRED:
Enable station systems

Done

Generator Operation

If utility power is NOT available and/or the generator has not started

- Reduce the load on the station – Shut pumps off
- Make sure that the generator output breaker is ON & the generator switch is in AUTO
- Enable the pumps as desired

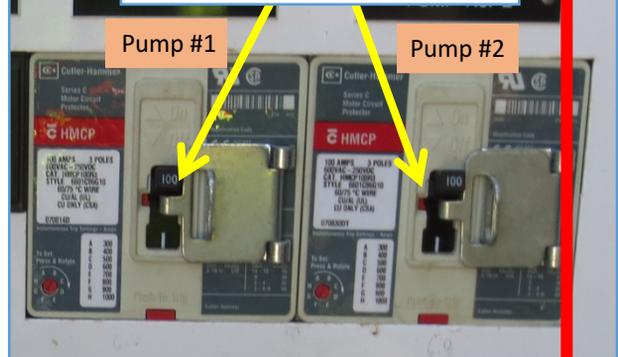
Begin

**Rotate the desired pump
Hand-Off-Auto switch to OFF**



*Pump #1 shown
Pump #2 is identical*

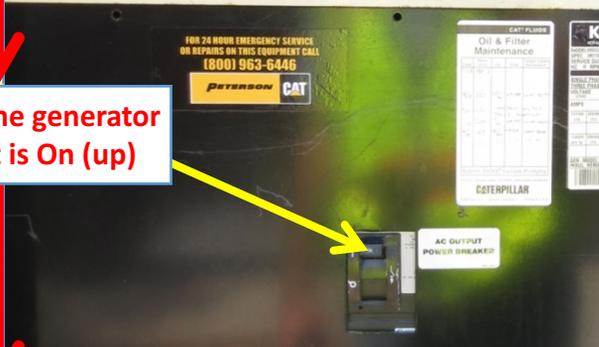
**Move the associated pump
disconnect DOWN to OFF**



**Move the RUN- OFF/Reset-AUTO
switch to AUTO (right)**



**Verify that the generator
disconnect is On (up)**



Next

Generator Operation

At this point, the generator should start and transfer over to generator power and be completely independent of utility grid power.

If the generator does not start, move the generator HAND-OFF-AUTO control to RUN (left)



If the transfer switch fails to transfer, move the RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 35 and follow the section: "Transfer Switch – Manual Override"

AS DESIRED:
Enable station systems

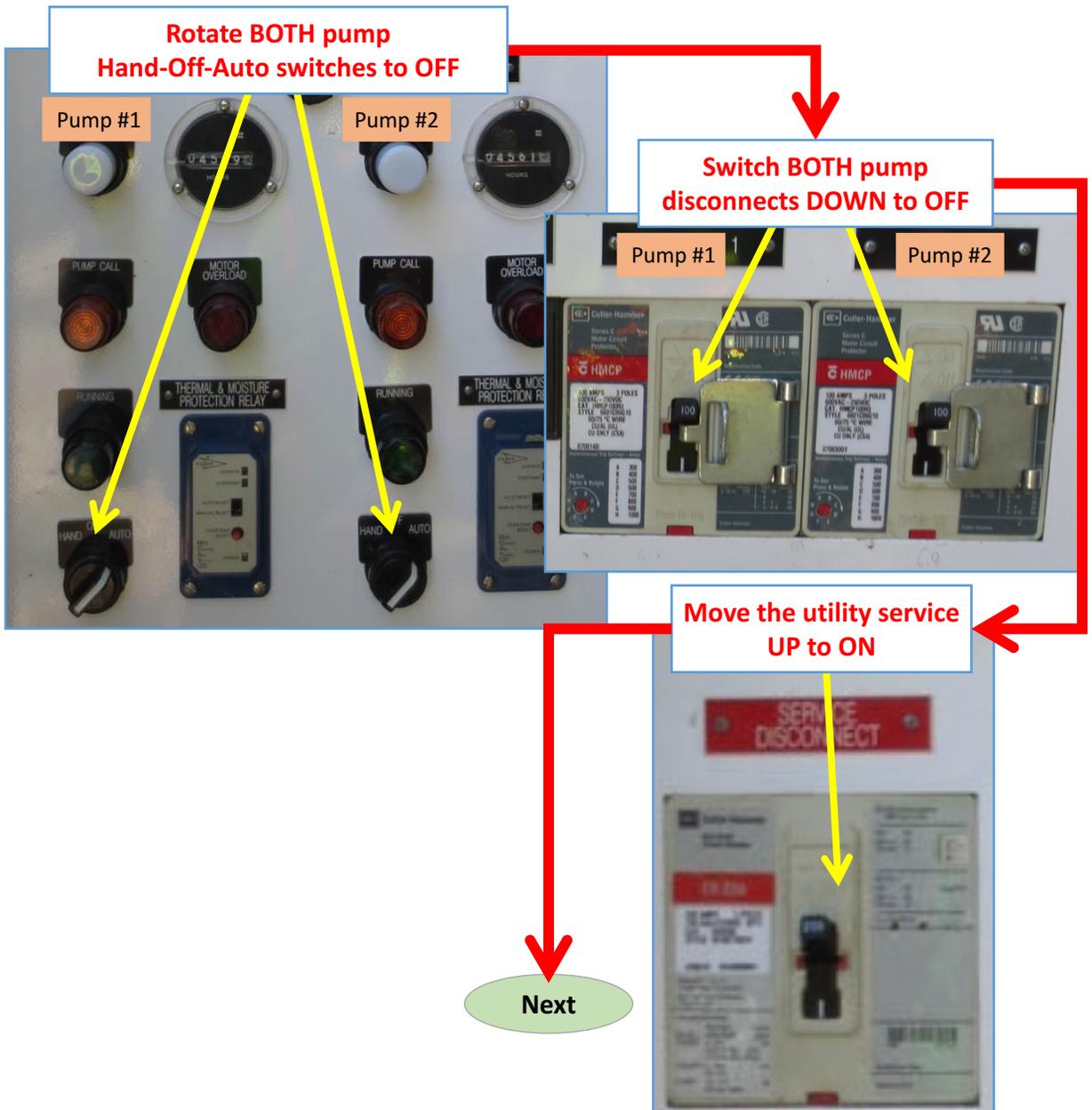
Done

Generator Operation

To return to utility power

- Reduce the potential load on the station – Shut the pumps off
- Move the main utility service breaker to ON
- *The transfer switch will sense utility power and transfer the station to the utility and then shut the generator down.*
- Enable the pumps as desired

Begin



Generator Operation

When the transfer switch senses utility power, it will initiate the transfer back to utility. The generator will continue to run until the transfer is complete and the engine cool-down period has elapsed, then it shuts down.

At this point, the station will be running on utility power

If the transfer switch fails to switch back to the UTILITY load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 35 and follow the section: "Transfer Switch – Manual Override"

*AS DESIRED:
Enable station systems*

Done

Generator Operation

THE FOLLOWING PROCEDURE SHOULD ONLY BE PERFORMED BY A QUALIFIED ELECTRICAL WORKER & TRAINED ELECTRICIANS

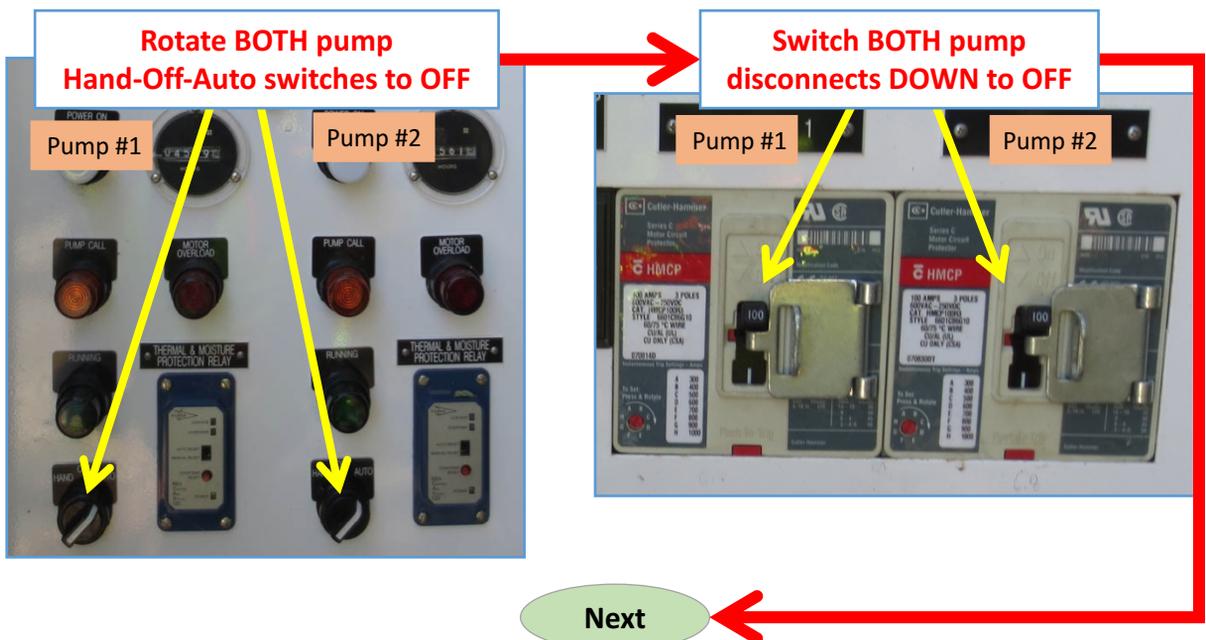
Transfer Switch – Manual Override

Use extreme caution when working in the transfer switch. Make sure to use all the proper lockout procedures before opening the switch cabinet

Summary: Transfer Switch – Manual Override

1. Reduce the load from the pump station – shut both pumps off
2. Shut down and disable the generator
3. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
4. Open the transfer switch cabinet & perform a voltage check
5. Manually change the contacts to the desired mode (EMERGENCY or NORMAL)
6. Close the transfer switch cabinet
7. **If transferring to emergency generator power**
 1. Close the generator disconnect (UP to ON)
 2. Move the generator control to RUN
 3. Leave the utility disconnect OPEN (OFF) *to avoid the transfer switch from trying to switch back to utility power*
 4. Enable station systems
8. **If transferring to utility power**
 1. Move the service utility disconnect UP to ON
 2. Enable station systems

Begin



Generator Operation

At the generator panel, move the RUN – OFF – AUTO switch to OFF (middle)



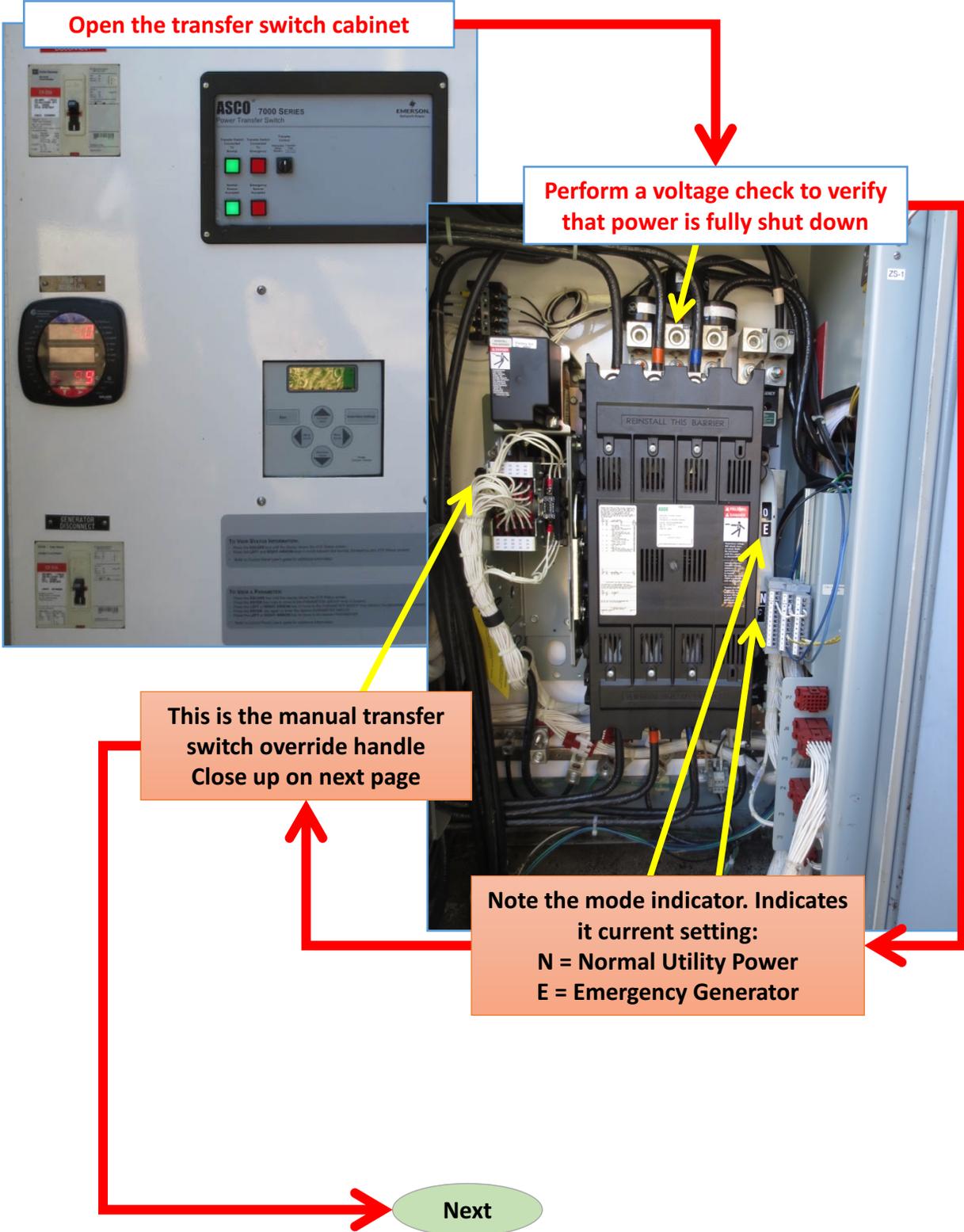
Move the utility service & generator disconnects DOWN to OFF & install LOTO devices



At this point, all electrical power sources have been locked out and work inside the transfer switch can be done

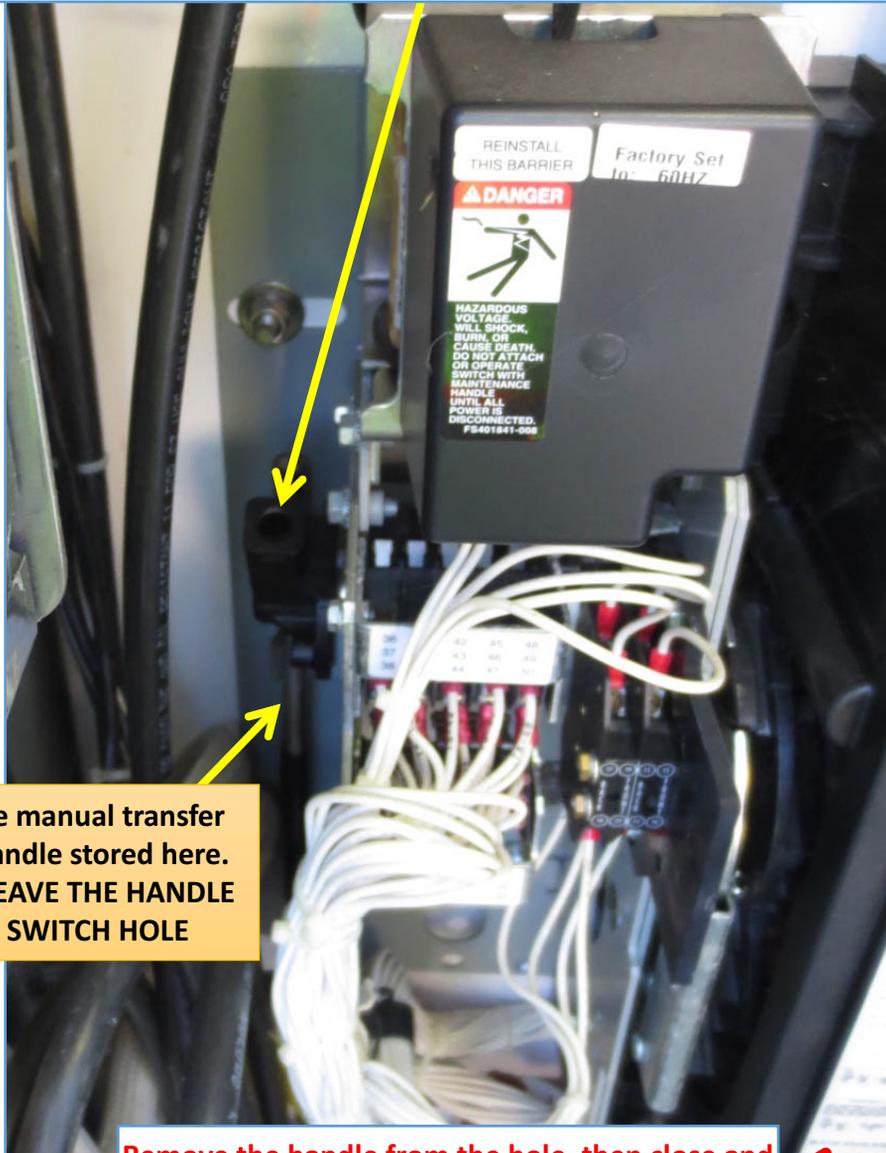
Next

Generator Operation



Generator Operation

Put the handle into the hole and move the switch Up/Down as desired to NORMAL (UP) or EMERGENCY (DOWN) MODE



This is the manual transfer switch; handle stored here. DO NOT LEAVE THE HANDLE IN THE SWITCH HOLE

Remove the handle from the hole, then close and secure the transfer switch cabinet door

Next

Generator Operation

If transferring TO emergency generator power



Move the generator disconnect up to ON. Leave the utility disconnect OFF to avoid the switch from trying to switch to utility

At the generator panel, move the RUN-OFF/Reset-AUTO switch to RUN (left) the generator should start



At this point, the station should be running on generator power and completely independent of utility grid power

AS DESIRED: Enable station systems

Done

Generator Operation

If transferring TO utility power



Move the utility disconnect UP to ON. The generator disconnect may be turned on or left off as desired

Set the RUN– OFF/Reset–AUTO switch to OFF/RESET (middle)
This prevents the generator from starting



At this point, the station should be running on UTILITY power

AS DESIRED: Enable station systems

Done

Bypass to Force Main

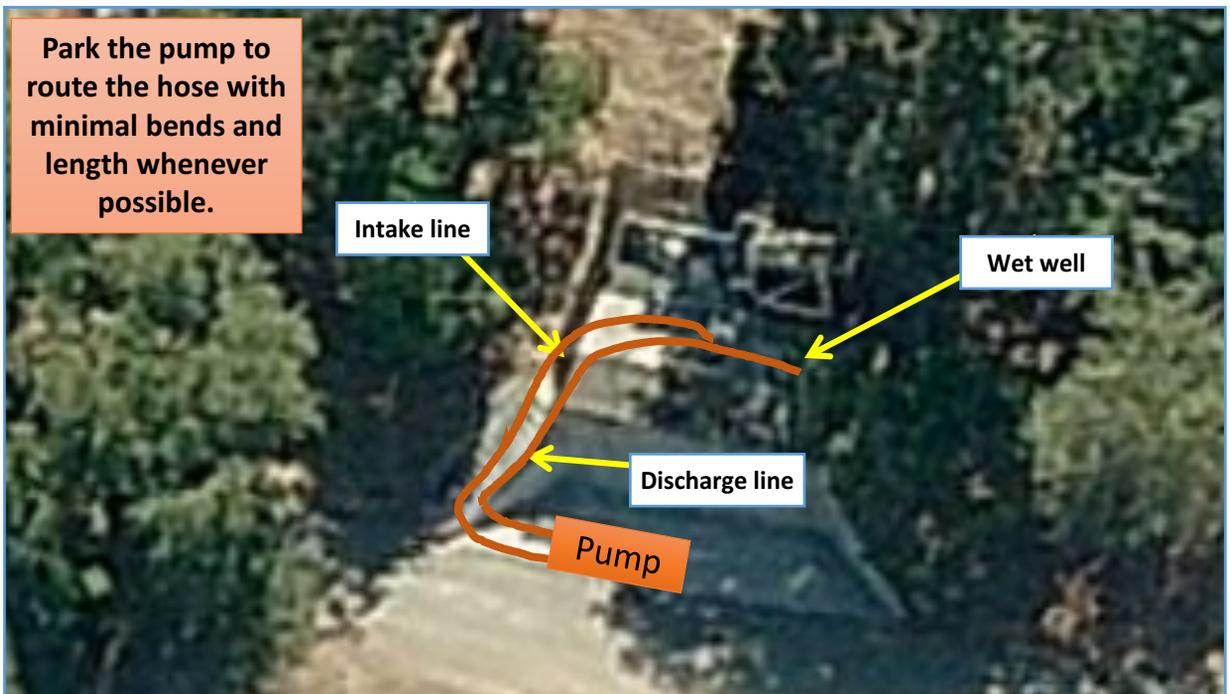
Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's SOP for operation & begin bypass pumping
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the valves needed to return to normal operations

Begin Procedure

Park the pump to route the hose with minimal bends and length whenever possible.



Next

Bypass to Force Main

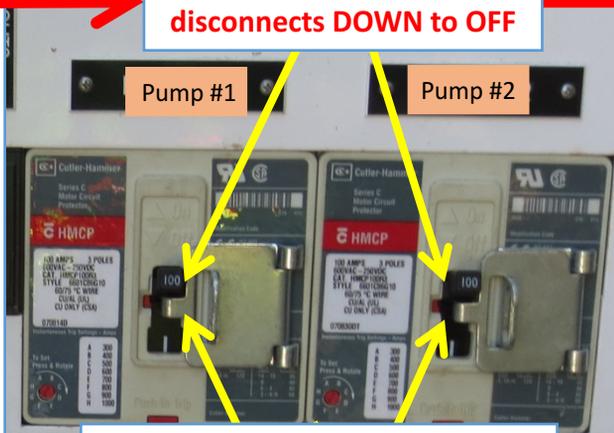
Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

Rotate the BOTH pump Hand-Off-Auto switches to OFF



**Pump #1 shown
Pump #2 is identical**

Move BOTH pump disconnects DOWN to OFF



Install a LOTO device on the pump disconnect breaker for the pump that will have its check valve worked on



Typical

Next

Bypass to Force Main

Close both discharge valves

Pump #2

Pump #1

Forcemain
drain (valve
stays closed)

Install LOTO device and tag onto the check valve for
the pump that will have it's check valve worked on

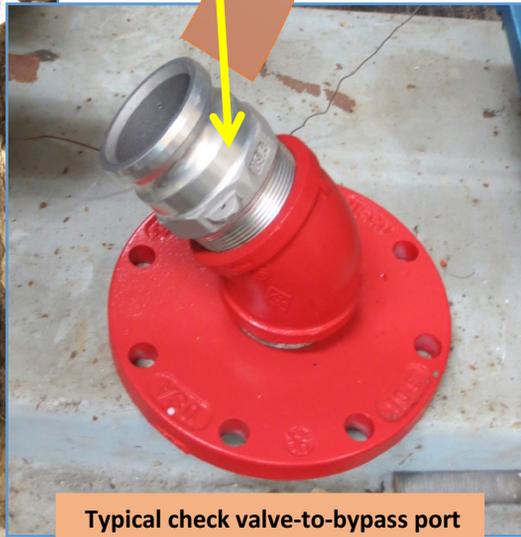
*Always test for electrical voltage & residual
pressure at the point of maintenance both
before and after locking out the system
to verify that it's fully locked out!*

Typical

Next

Bypass to Force Main

Install a flange/coupler onto the bypass valve



Typical check valve-to-bypass port coupler/adapter

Next

Bypass to Force Main

Connect a suction hose with strainer-end to the intake port

Lower the suction hose into the wet well



Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
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Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

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John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Rental Pump System Contractors

Vendor	Contact Info
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Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forceman & Mainline Repairs

Vendor	Contact Info
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Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

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Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan



Pump Station PS-D

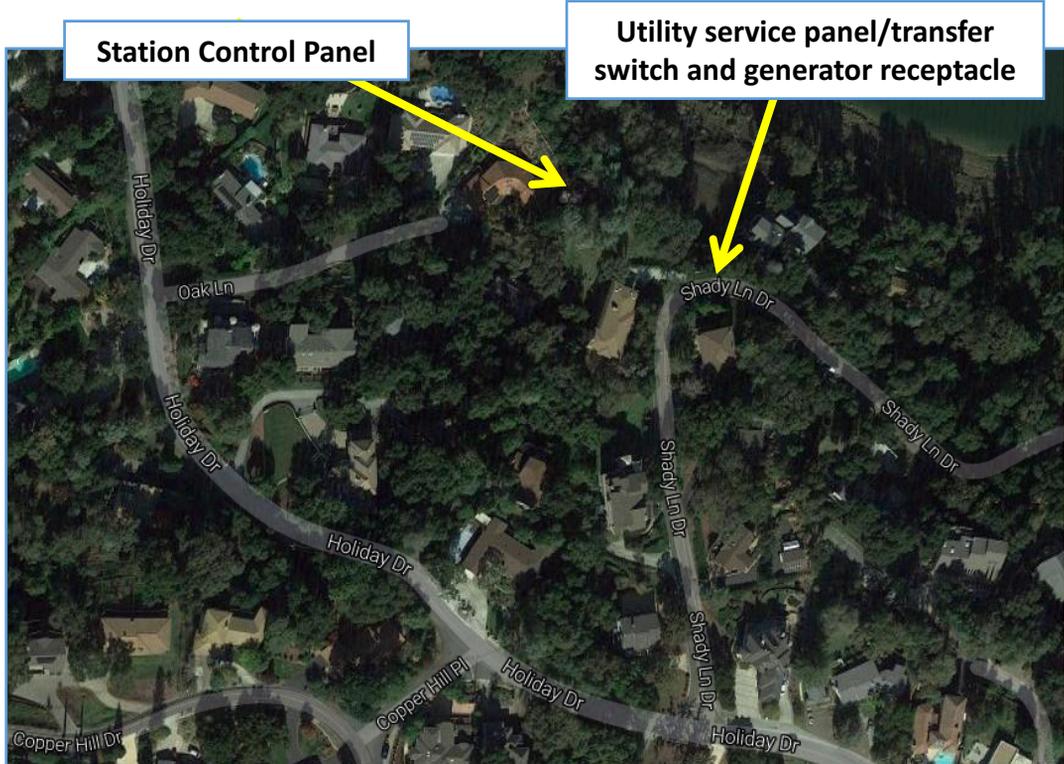
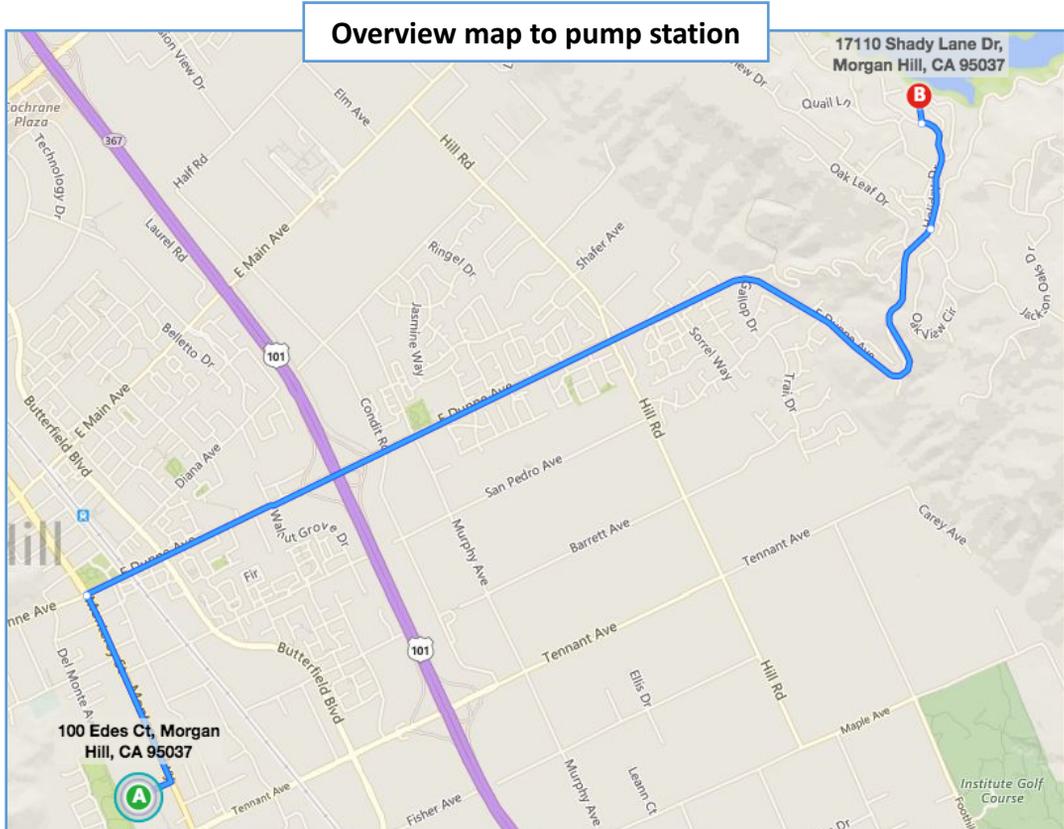
17110-B Shady Lane Drive Pump Station

Table of Contents	
Pump Station Technical Information	3
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Pump Station Network	9
Overflow Decision Tree	10
Spill Notification Procedures	17
Spill Containment	18
Pump Station Power Map	19
Pump Station Control System	20
Lockout/Tagout Procedures	25
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Bypass to Force Main	35
Contact Information	41
System Map	45

Pump Station Technical Information

Name	PS-D - 17110-B Shady Lane Drive Pump Station
Address	17110-B Shady Lane Drive, Morgan Hill, CA 95037 NOTE: The electrical panel for the pump station is located just to the right side of the driveway at this address. The pump station itself is located at the rear of the property and is accessed via the trail behind 3461 Oak Ln, Morgan Hill, CA 95037. See detail maps on the next page.
Lat., Long.	Pump station utility service panel: 37.15135, -121.59498 Pump station (wet well, etc.): 37.151609, -121.595516
Directions to the utility service panel	From the City of Morgan Hill Corporation Yard at 100 Edes Ct. <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn left onto Monterey St/Hwy. Turn right on E Dunne Ave Bear left on Holiday Drive Turn right on Shady Lane Drive The utility service panel will be on the right at 17110 Shady Ln. Dr.
Directions from the utility service panel to the pump station (wet well)	<ul style="list-style-type: none"> Starting at the utility service panel at 17110 Shady Ln. Dr. Head south on Shady Ln. Dr. (away from lake) Turn right (west) on Holiday Dr. Turn right (east) on Oak Ln. At the end of the court, take the middle drive way (3461 Oak Ln, Morgan Hill, CA 95037) and park along the right side. Take the trail along the outside of the right side of the fence The pump station is located behind the rear fence of the house. <div style="border: 2px solid red; background-color: yellow; padding: 5px; margin-top: 10px; text-align: center;"> ALERT! The station is down a small pathway. Vehicles will not be able to get to the station. </div>

Pump Station Technical Information

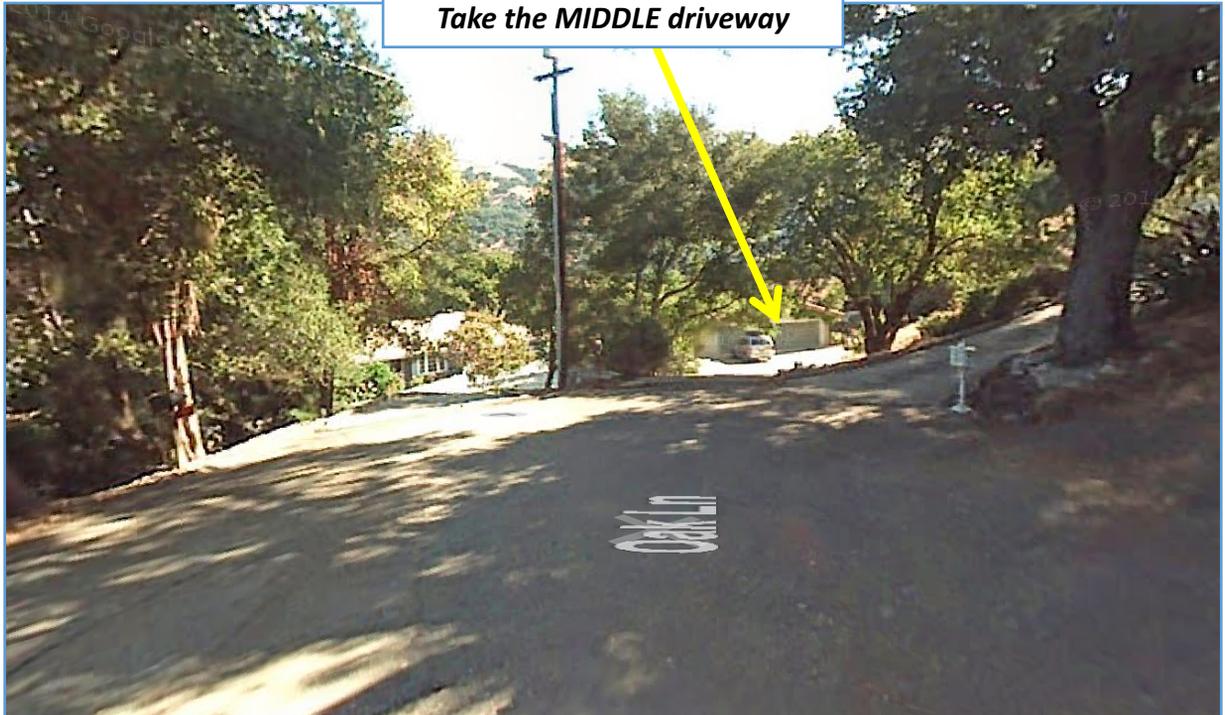


Pump Station Technical Information

Utility service panel/transfer switch and generator receptacle
at 17110-B Shady Lane Drive, Morgan Hill, CA 95037



This is the end of Oak Lane
Take the MIDDLE driveway



Pump Station Technical Information

Pump Station Aerial View



Pump Station Technical Information

Station Information

Wet well dimensions & capacity	Tank 1: 6' diameter x 16' deep; 3,384 gallons Tank 2: 6' diameter x 11.5' deep; 2,432 gallons Tank 3: 4' diameter x 12' deep; 1,128 gallons Total Capacity: 6,944 gallons
Est. hold time (dry weather)	6 hours
Low point (likely overflow point)	Pump station wet well Approx. GPS: 37.151609, -121.595516
Upstream pump station(s)	Gravity Only
Downstream pump station	PS-F
Forcemain Data	4" x 896'
Discharge location	

Pump Capacities

Pump	Motor & Pump	Capacity
#1	Flygt 3152/273, 23hp, 240v 3-phase	116 gpm
#2	Flygt 3152/273, 23hp, 240v 3-phase	116 gpm

Station Power

Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038025
	PG&E Meter #	1009448662
	PG&E Outage Block	50
	Priority	Sewer pump station
Backup Generator	The station is not equipped with a permanently installed backup generator, however it is equipped with a manual transfer switch and a quick connect for a portable generator	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

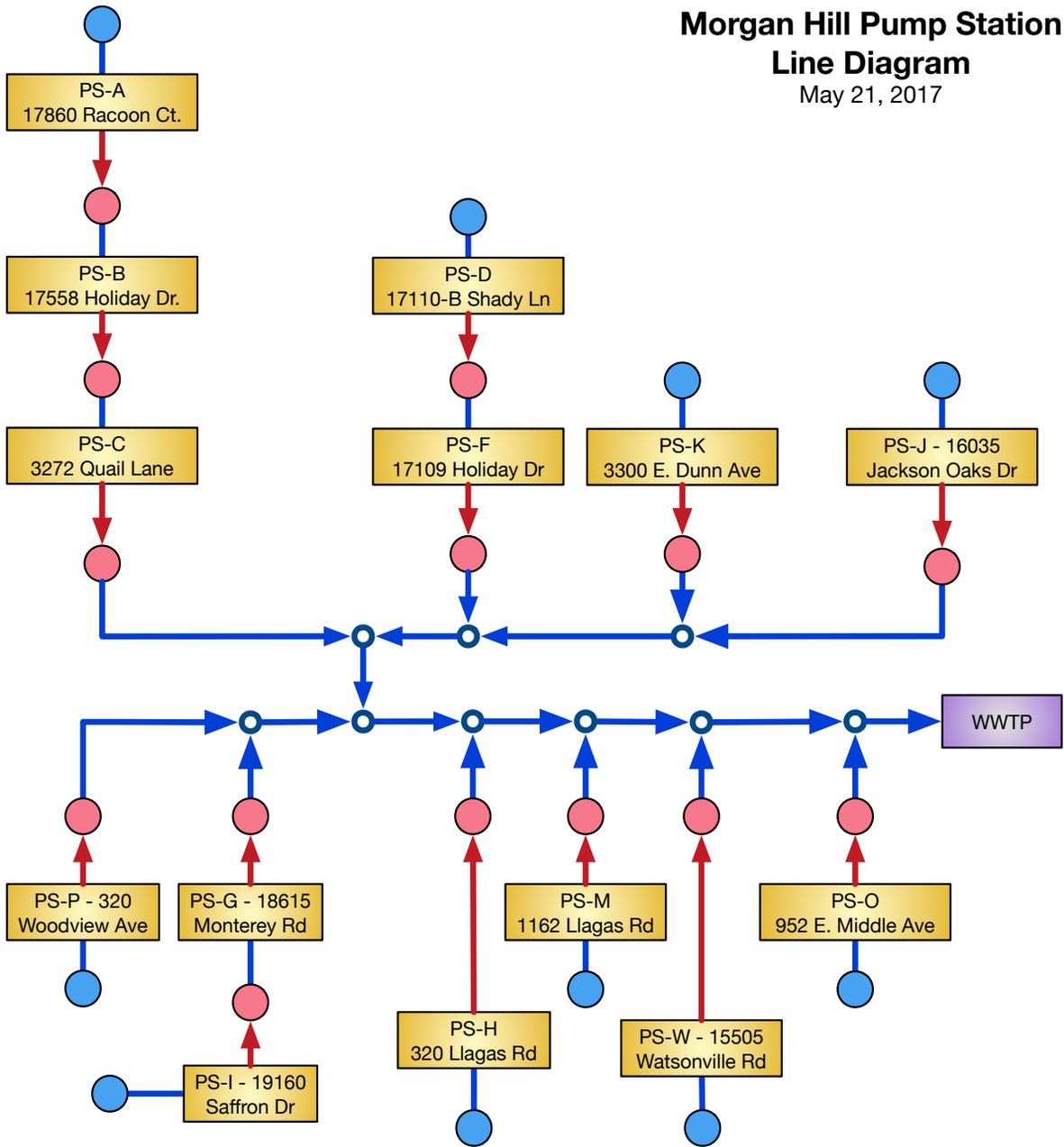
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

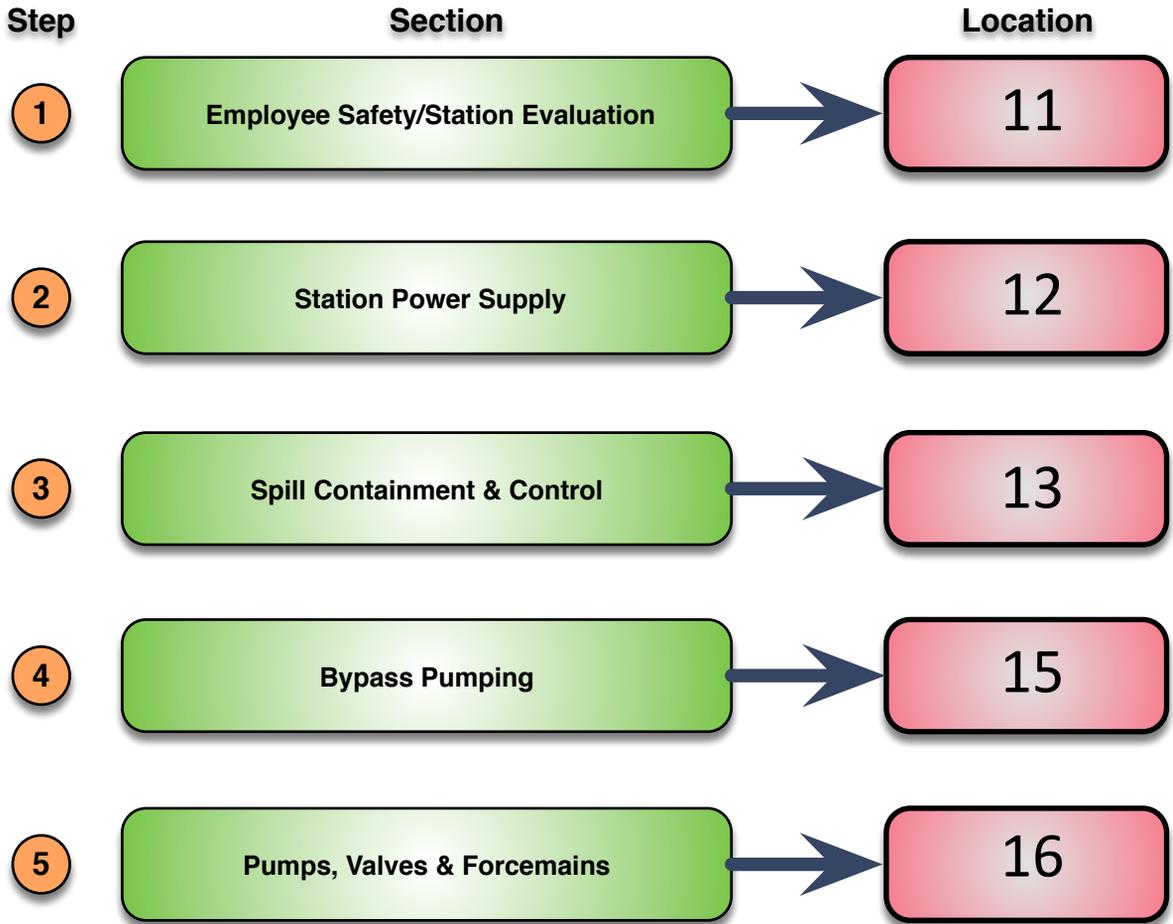
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
Gravity Feed Only	Force main & flow direction
Force Main Discharge	Gravity line & flow direction
Force Main Junction	PS Morgan Hill managed PS
Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide Decision Tree Index



LEGEND



Initial Question



Decision Point



Page-To-Page Link



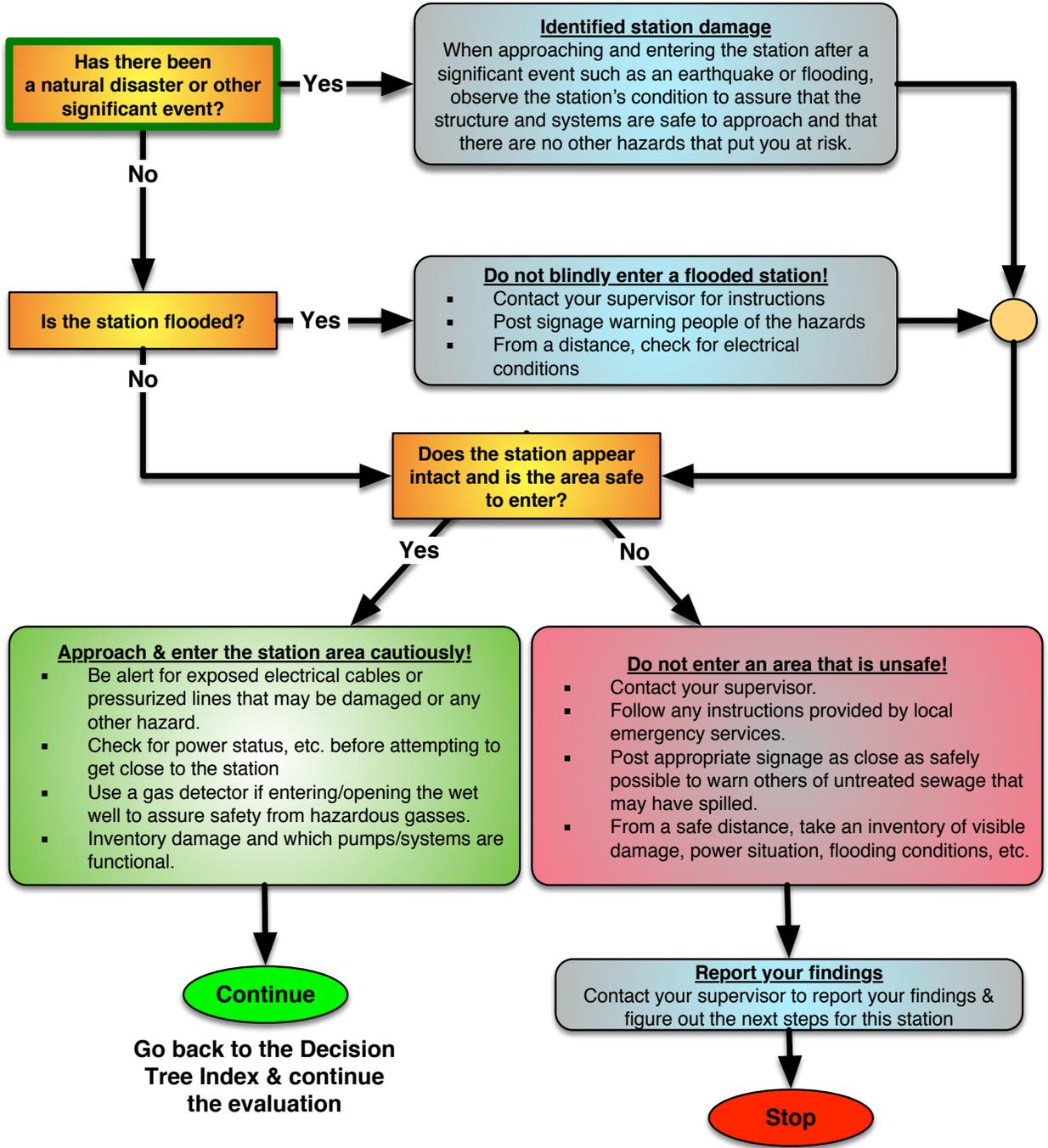
Task/Direction Item



Sequence Merge (Watch arrows for flow direction)

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

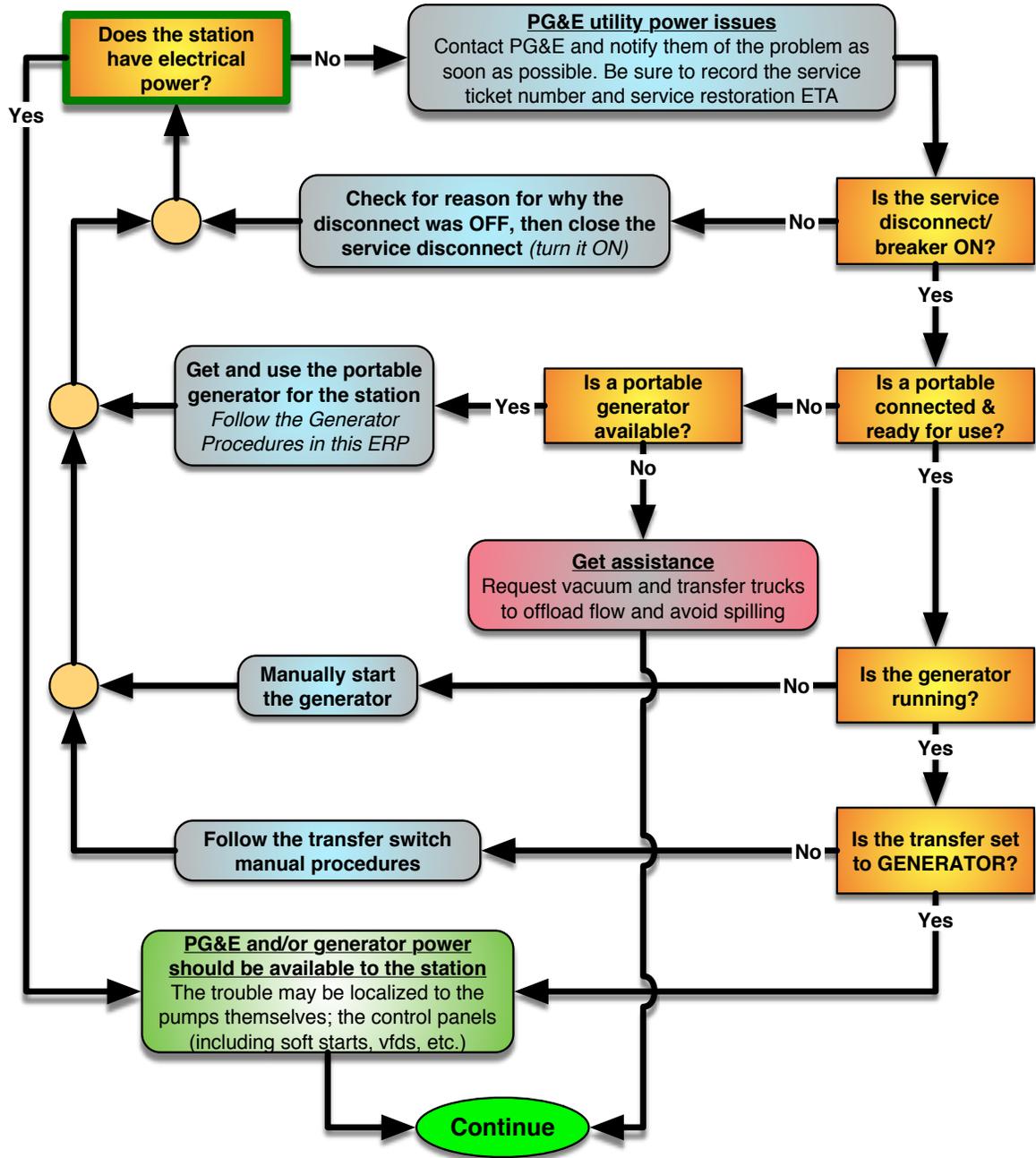


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply



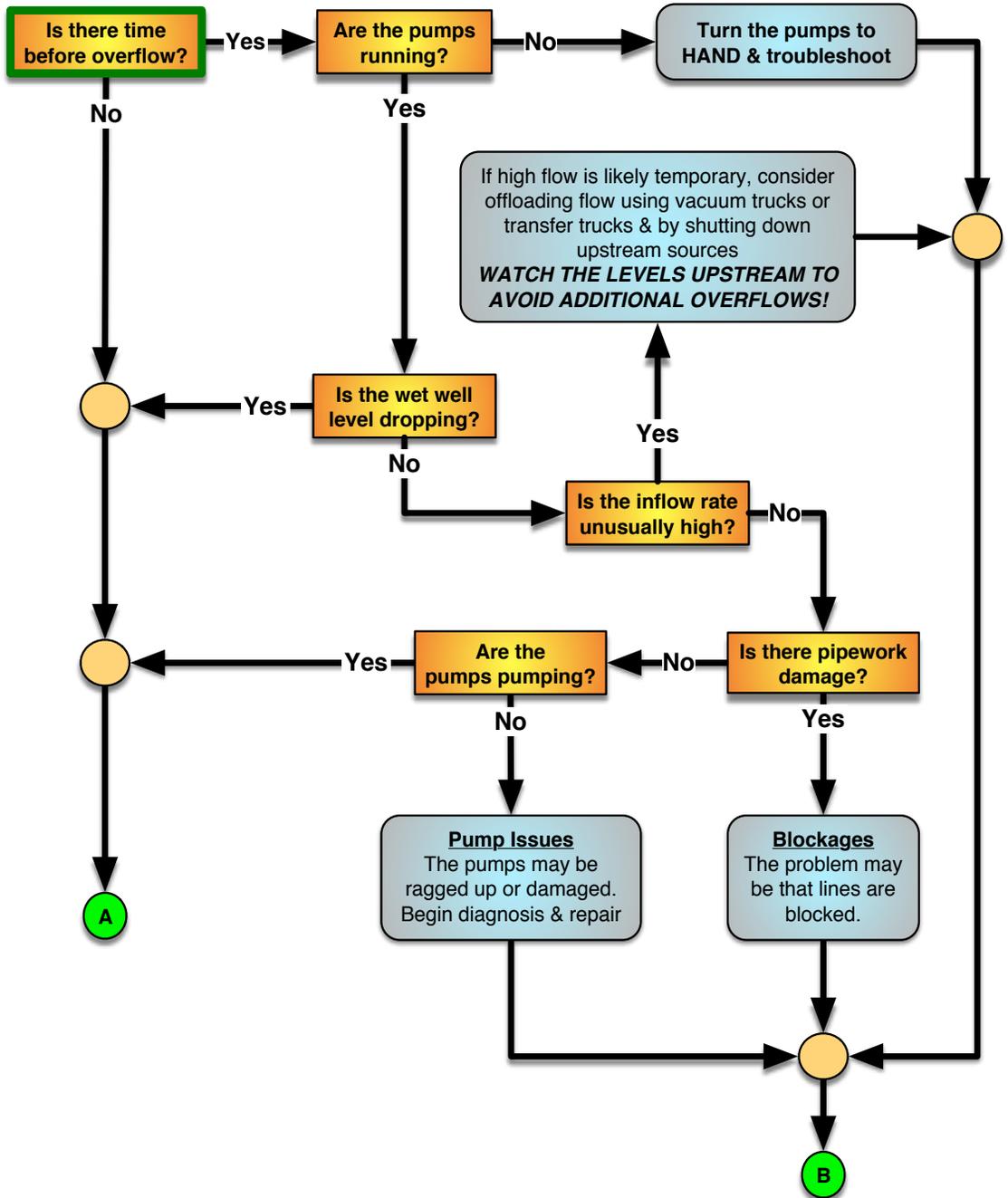
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

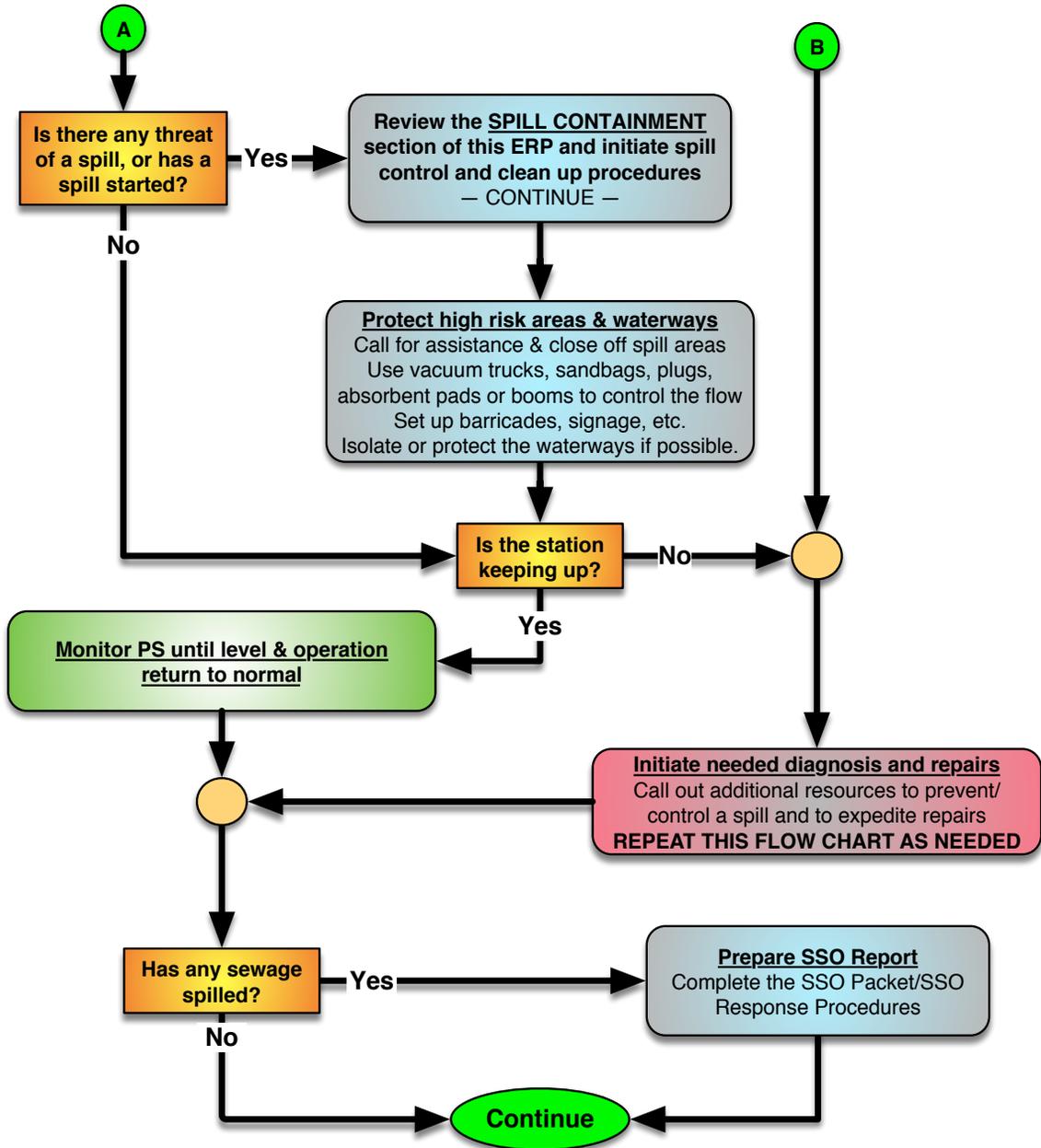
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ○ Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3
Pump Station Emergency Response Guide
Spill Containment & Control - *Continued*



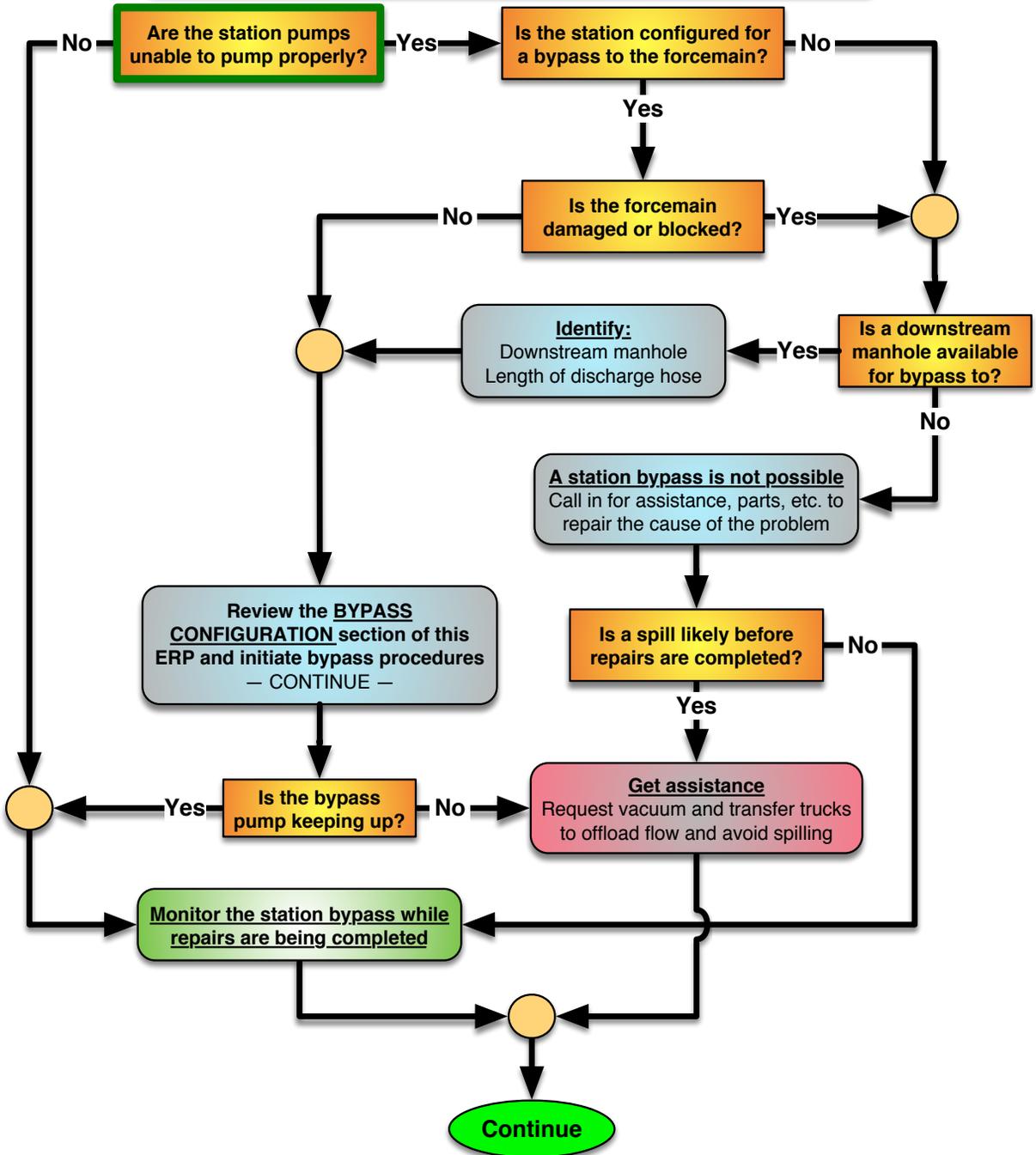
Go back to the Decision Tree Index & continue the evaluation

LEGEND

? Initial Question	X Page-To-Page	● Sequence Merge	■ Decision Point	● Task/Direction Item
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Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



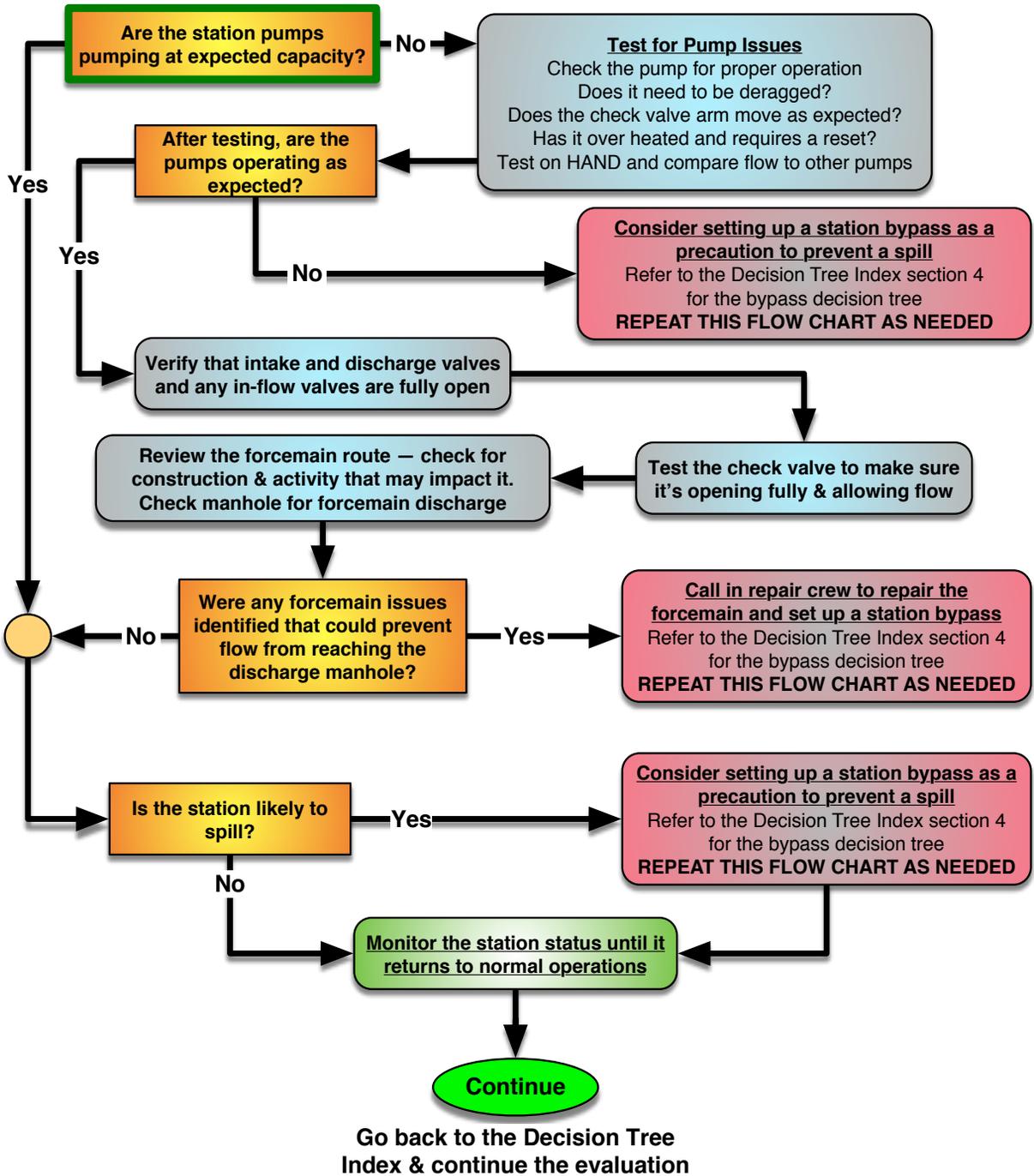
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5 Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Spill Notification Procedures

Pump Station D is located in the Jurisdiction of the
San Francisco Bay Regional Water Control Board (#2)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

**See the Contact Information Section for contact information
Page 41**

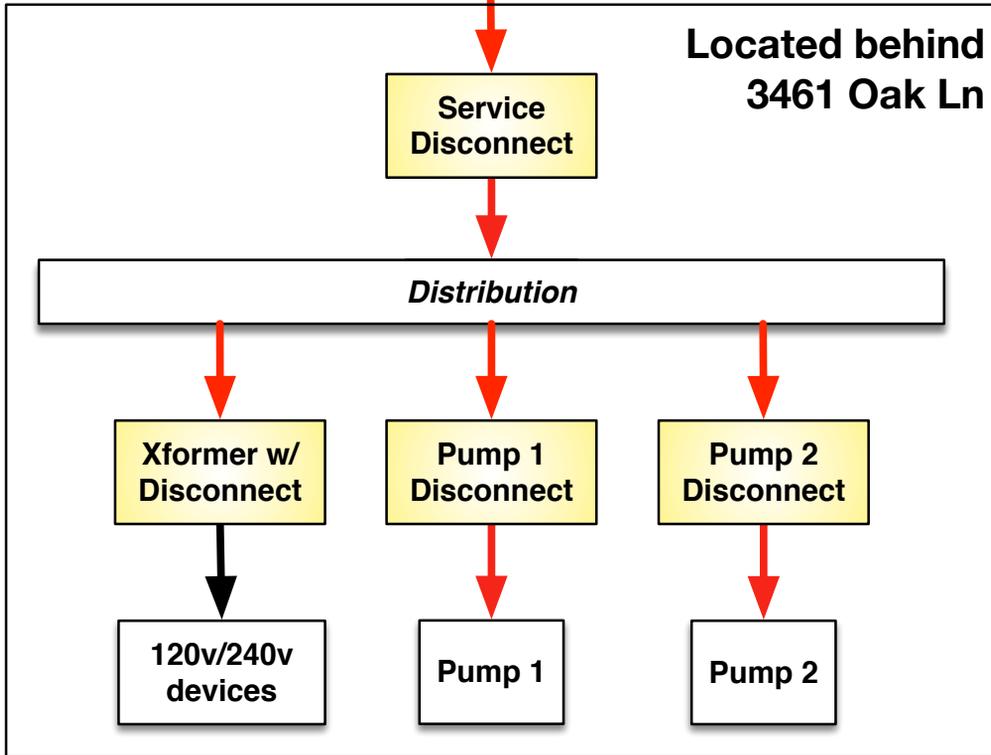
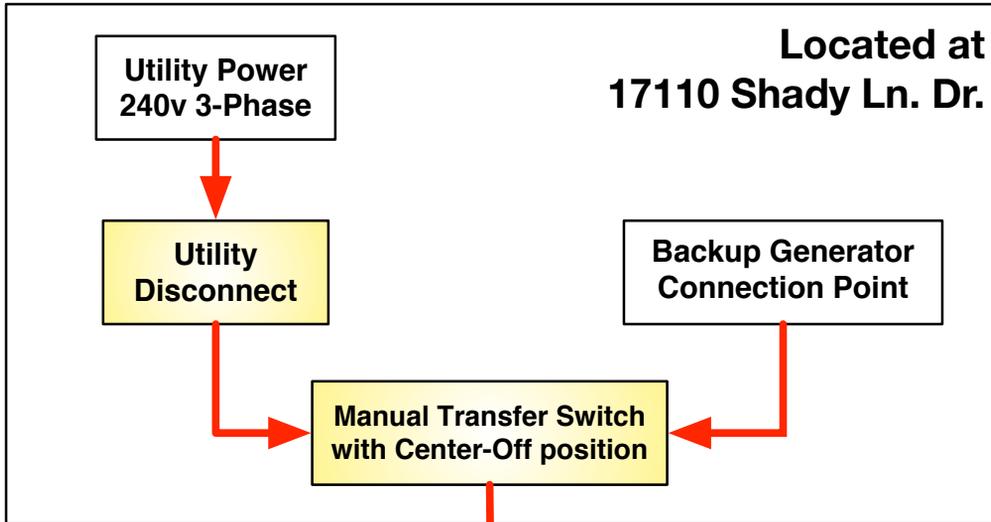
Spill Containment



Potential SSO Impact on State Water

	Type	Position from low point	Containment
1	Pump station	10' E	Sandbags or booms to create a holding area around the low point and/or a vacuum truck to collect the spill.
2	Low point	-	
3	Storm drain	~15' N	
4	Anderson Lake	~200' N	
5	<i>Expected flow direction from system low point</i>		

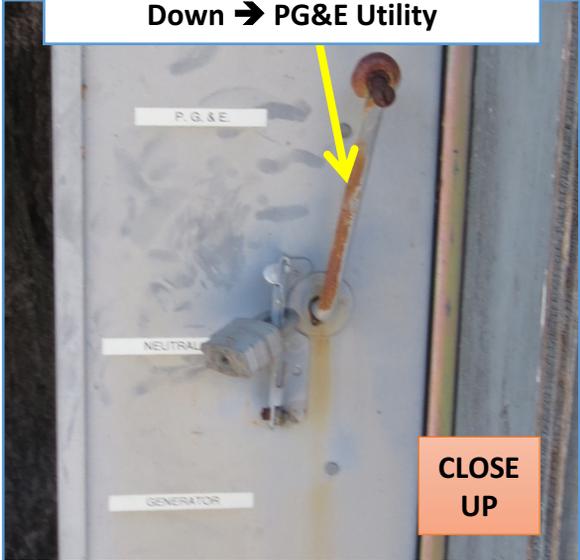
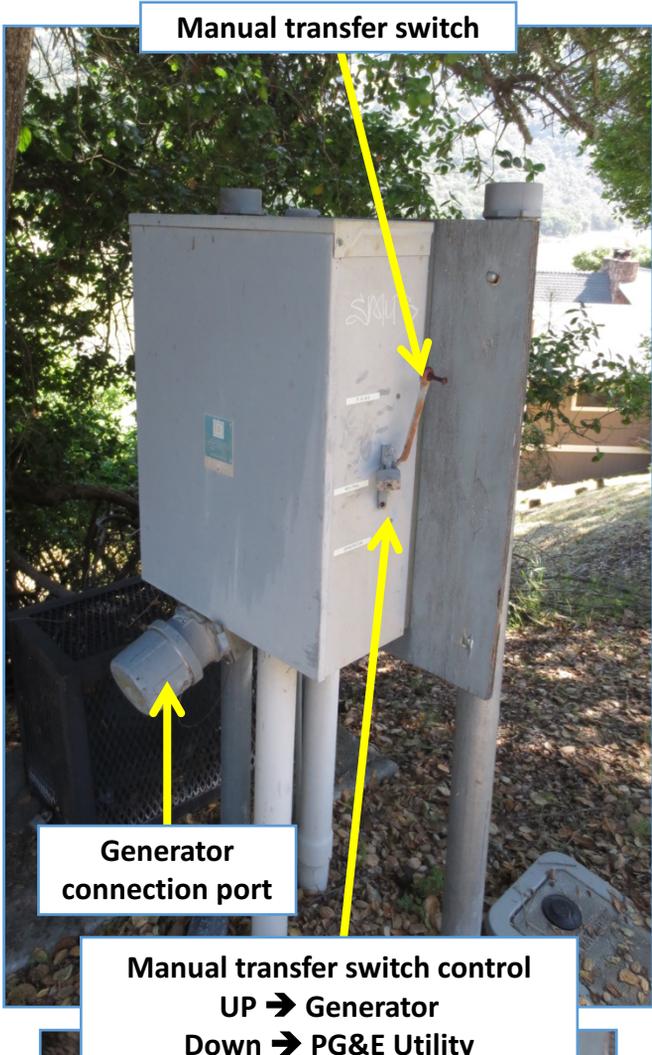
Pump Station Power Map



Done

Pump Station Control System

Controls Located at 17110 Shady Lane Drive



Next

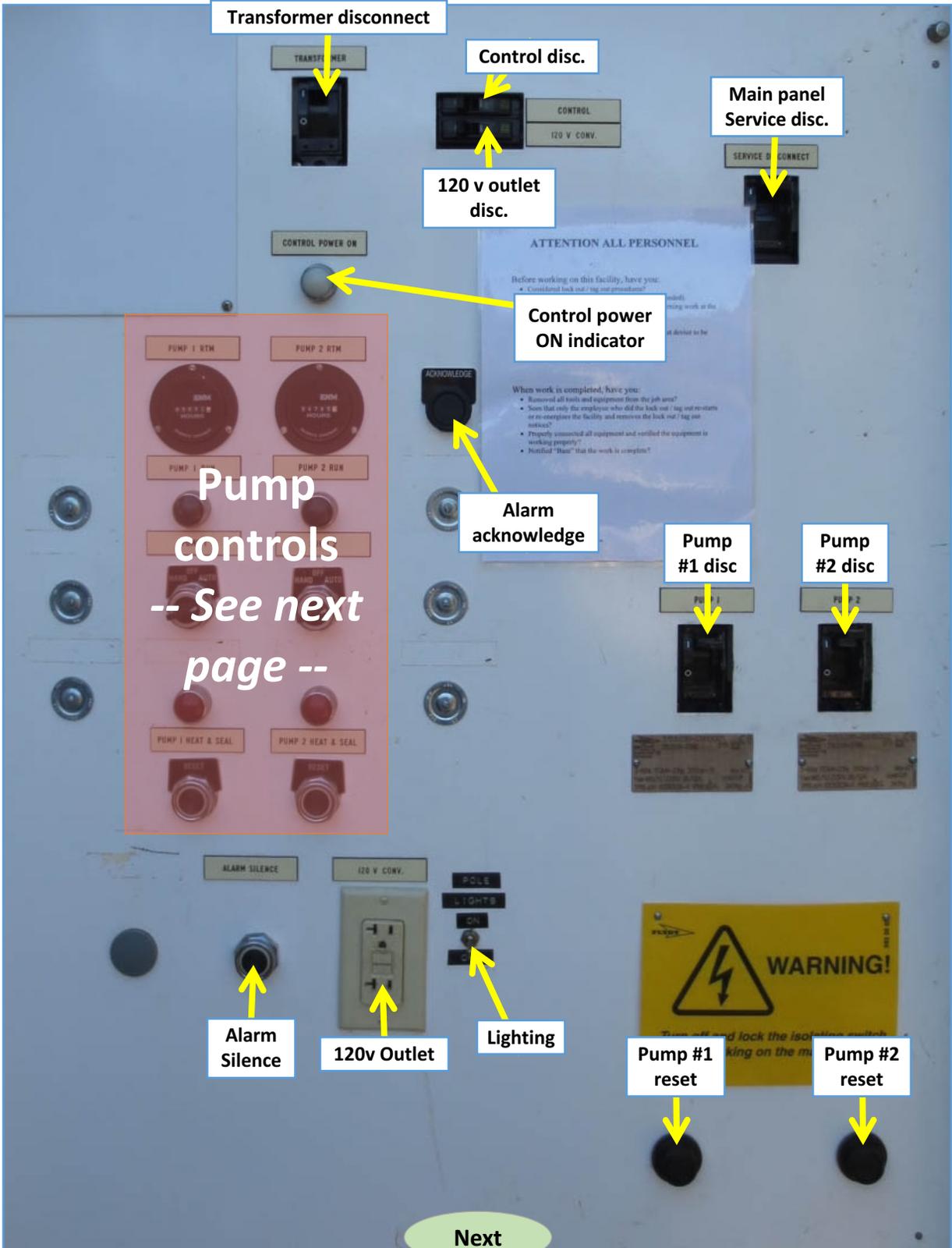
Pump Station Control System

Controls Located at the Pump Station

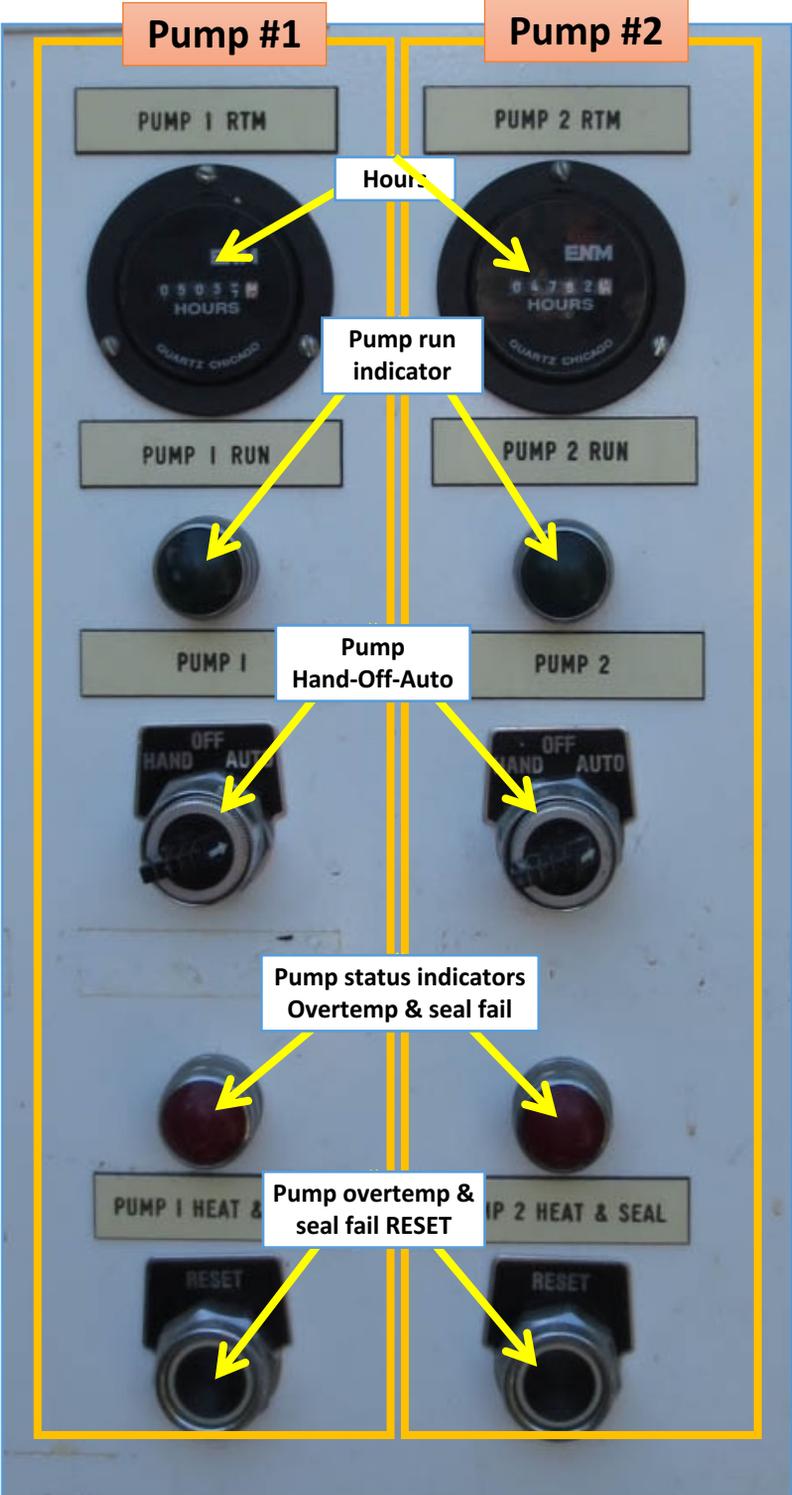


Next

Pump Station Control System

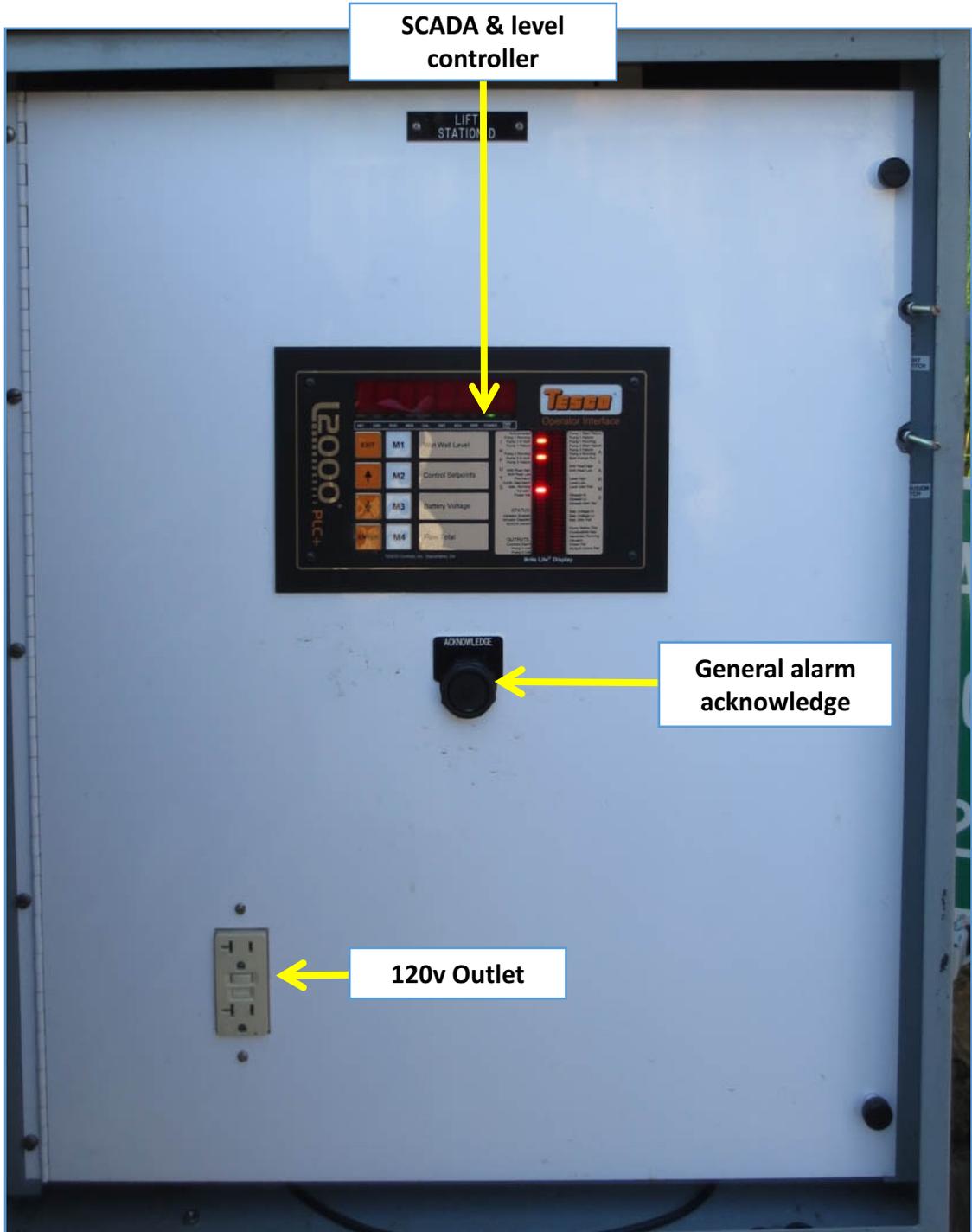


Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and potentially by portable backup generator. Care must be taken to disable all energy sources.

Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down (if attached) and disable the generator
4. Move the utility service disconnect to OFF & install LOTO device & tag
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**

**Move BOTH pump
disconnects DOWN to OFF**



Next

Lockout/Tagout Procedures

If a portable generator is attached, shut it down and disable it from starting

Move the utility service disconnect
DOWN to OFF & install a LOTO device



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

On control panel for desired pump

1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel

**Rotate the desired pump
Hand-Off-Auto switch to OFF**

**Move the associated pump
disconnect DOWN to OFF**



**Install a LOTO device on the
pump disconnect breaker**



Next

Lockout/Tagout Procedures

Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

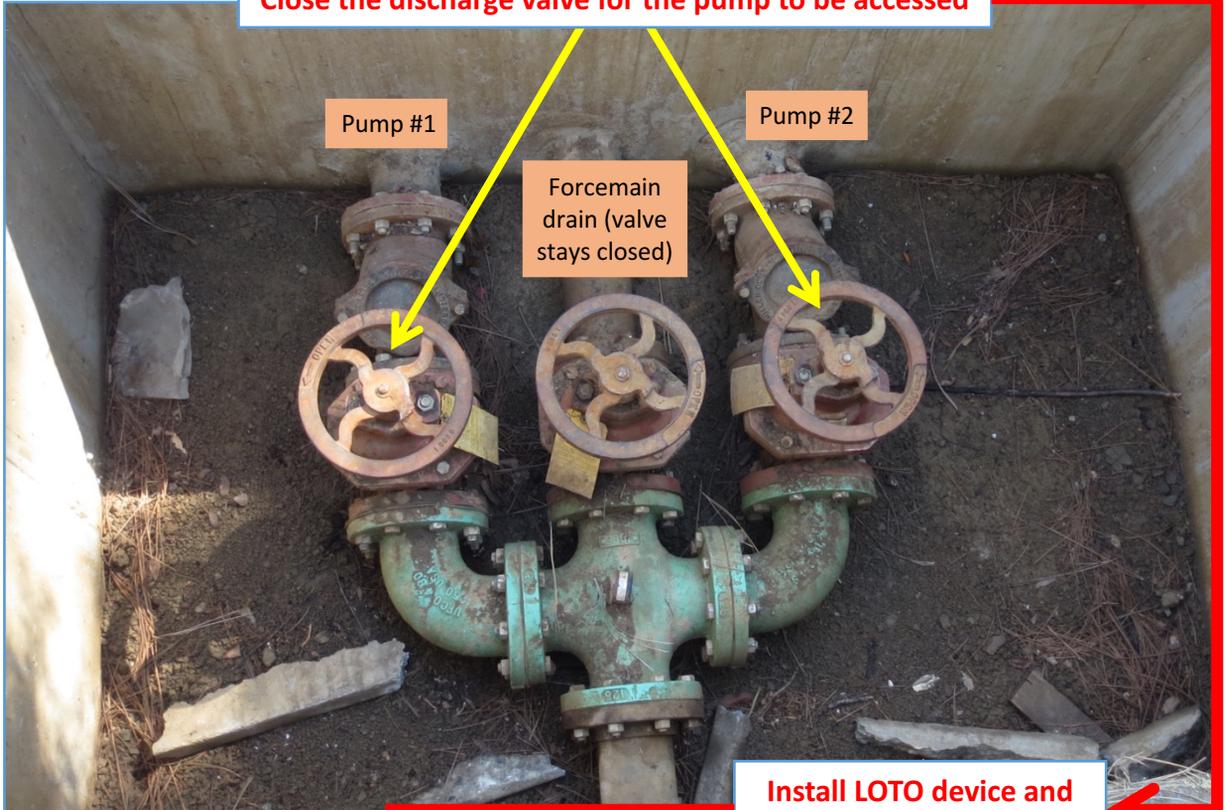
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Generator Operation

Portable Generator Connection & Operation

- Reduce the potential load on the station – Shut pumps off
- Shut the utility service disconnect OFF
- Connect the generator
- Unlock and move the manual transfer switch to GENERATOR
- Start the generator & then turn the generator output breaker ON
- Enable the pumps as desired

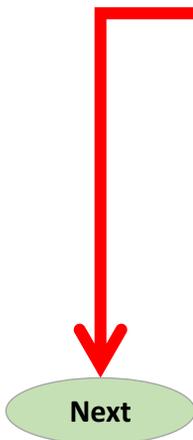
Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**

**Move BOTH pump
disconnects DOWN to OFF**



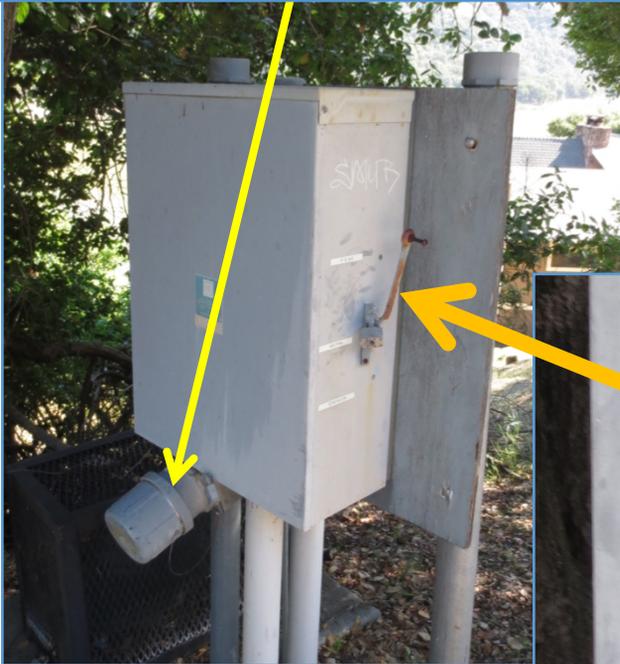
**Move the utility service
disconnect DOWN to OFF**



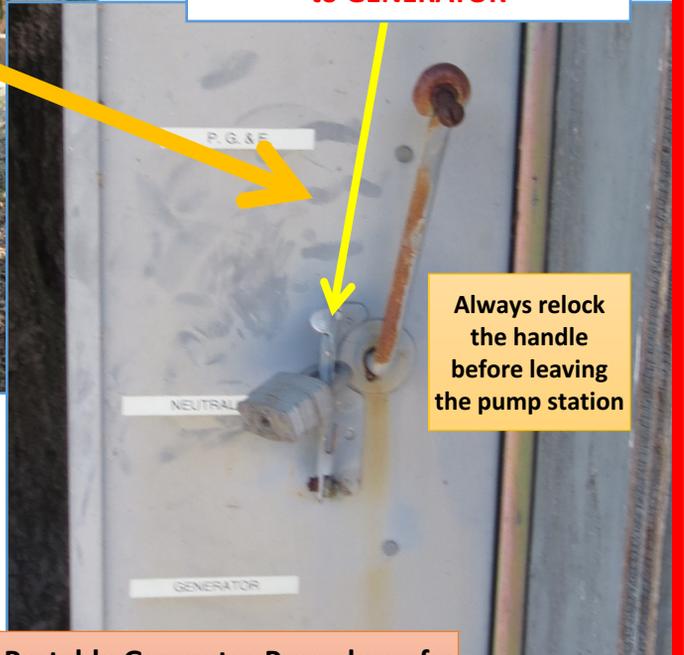
Generator Operation

This station requires 240v 3-phase power
Be sure the generator is appropriately sized and configured for use

Connect the portable generator to the emergency generator power port



Unlock and move the manual transfer switch handle DOWN to GENERATOR



Follow the appropriate Portable Generator Procedures for starting and bringing the portable generator online
→ *Once it's operating, continue*

Next

Generator Operation

AS DESIRED: Enable station systems

**Rotate BOTH pump
Hand-Off-Auto switches to
HAND or AUTO as desired**

**Move BOTH pump
disconnects UP to ON**



At this point, the station should be running on generator power and completely independent of utility grid power

Done

Generator Operation

To return to utility power

- Reduce the potential load on the station – Shut pumps off
- Shut the generator OFF & disconnect the generator
- Unlock and move the manual transfer switch to UTILITY/PG&E POWER
- Move the main utility service breaker to ON
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**

**Move BOTH pump disconnects
DOWN to OFF**



Follow the appropriate Portable Generator Procedures for shut down and disabling the portable generator → *Once it's fully stopped, continue*

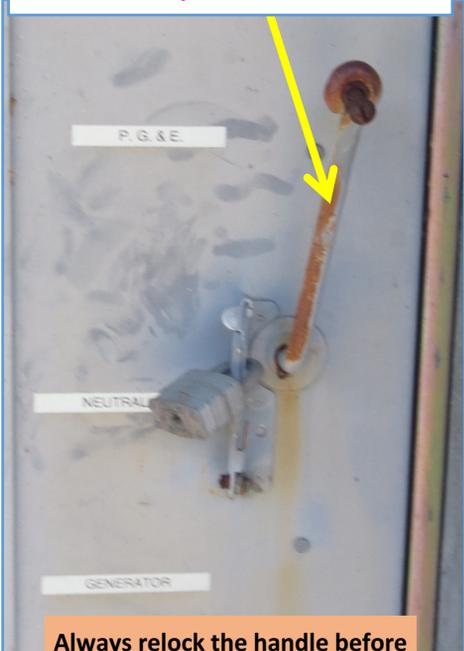
**Disconnect the portable generator from
the emergency generator power port**



Next

Generator Operation

Unlock and move the manual transfer switch handle UP to UTILITY/PG&E POWER



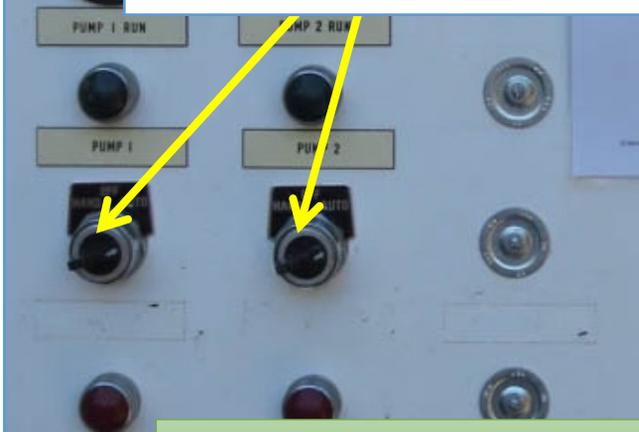
Always relock the handle before leaving the pump station

Move the utility service disconnect UP to ON



AS DESIRED: Enable station systems

Rotate BOTH pump Hand-Off-Auto switches to HAND or AUTO as desired



Move BOTH pump disconnects UP to ON



At this point, the station should be running on UTILITY/PG&E Power

Done

Bypass to Force Main

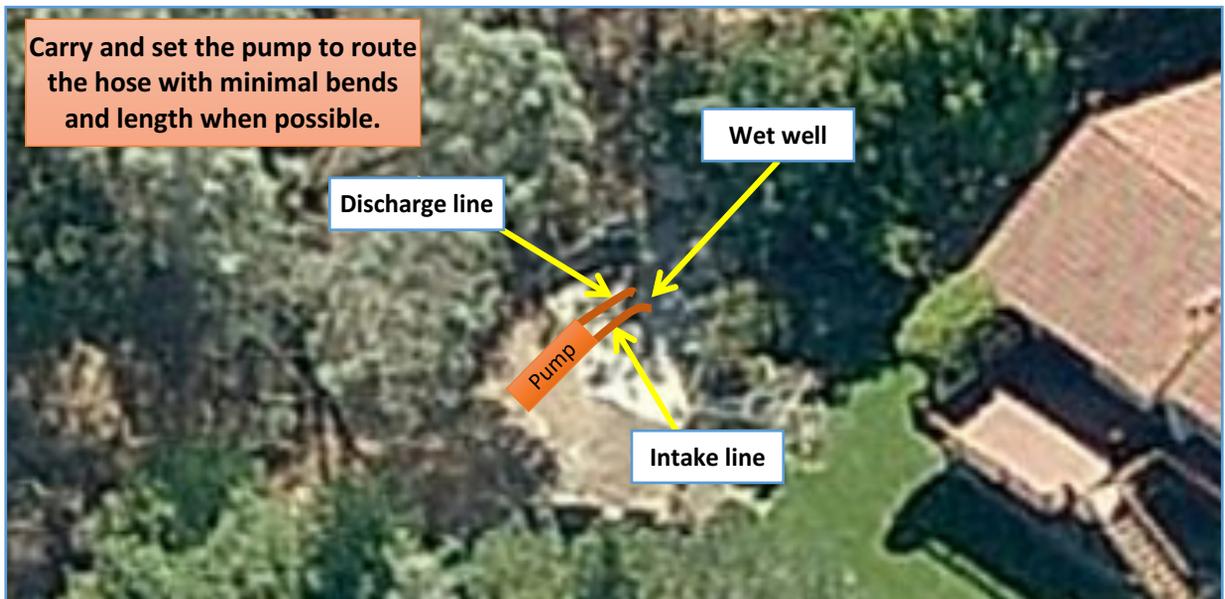
Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

- Place & prepare the trash pump
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the valves needed to return to normal operations

Begin Procedure

Carry and set the pump to route the hose with minimal bends and length when possible.



Next

Bypass to Force Main

Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

Rotate BOTH pump Hand-Off-Auto switches to OFF

Move BOTH pump disconnects DOWN to OFF



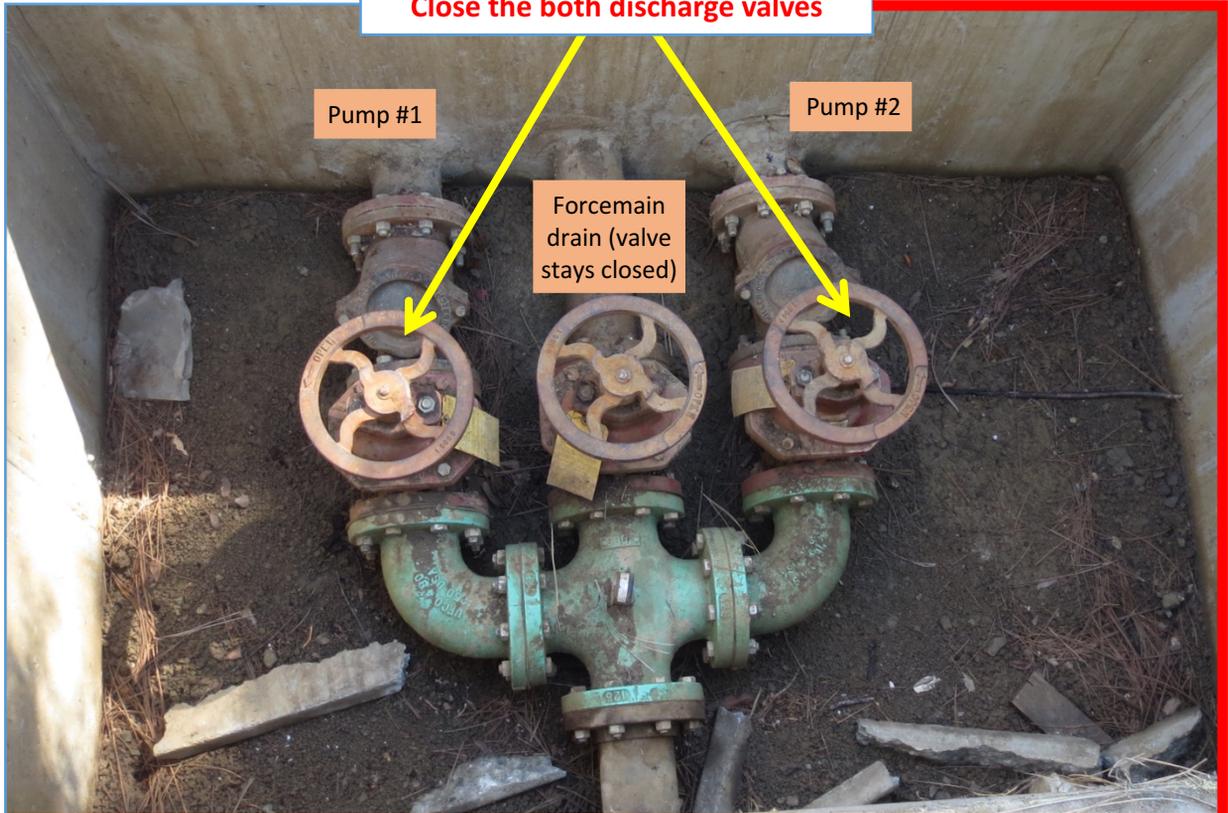
Install a LOTO device on the pump disconnect breaker for the pump that will have it's check valve worked on



Next

Bypass to Force Main

Close the both discharge valves



Install LOTO device and tag onto the check valve for the pump that will have it's check valve worked on

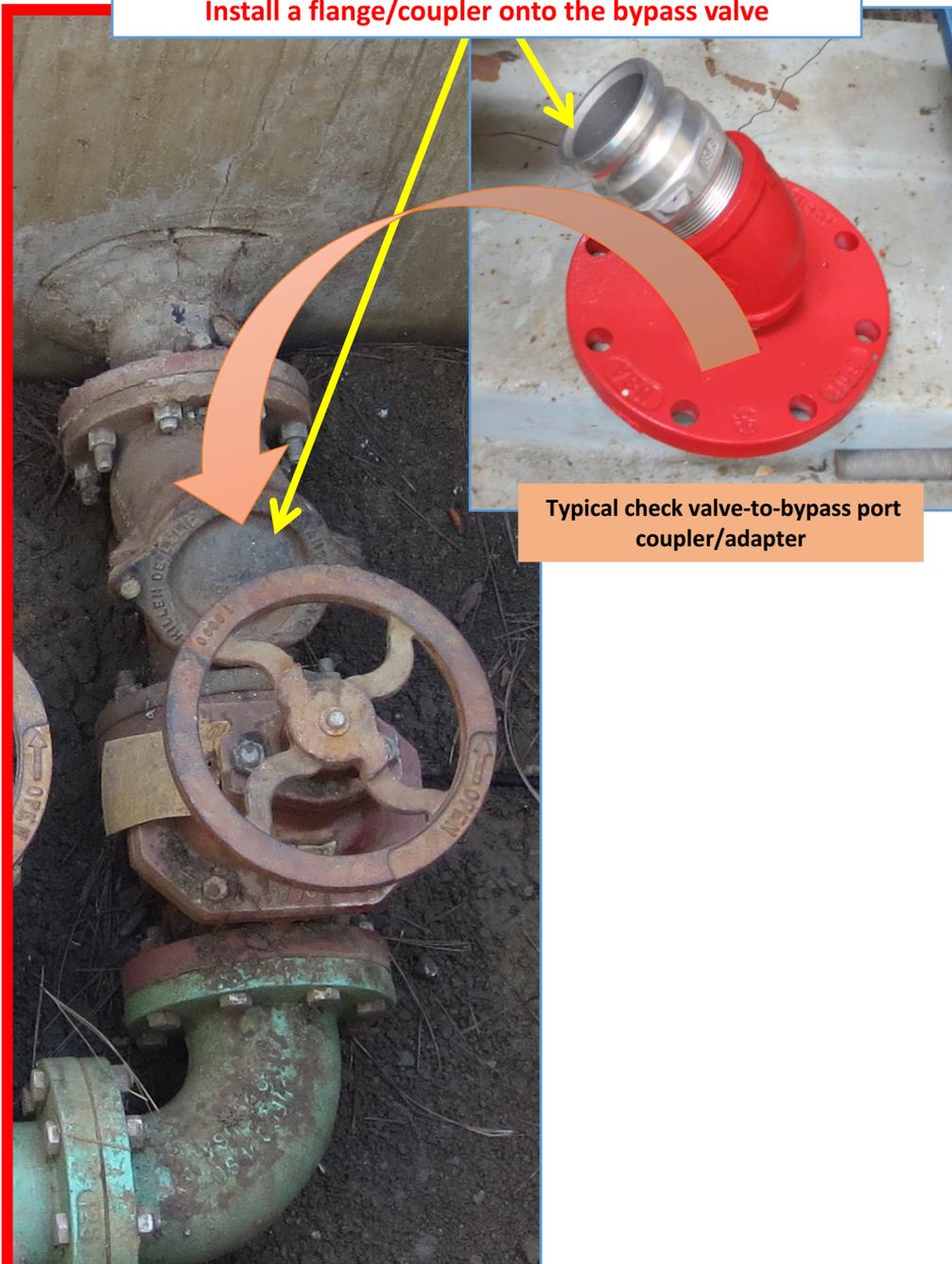
Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!



Next

Bypass to Force Main

Install a flange/coupler onto the bypass valve

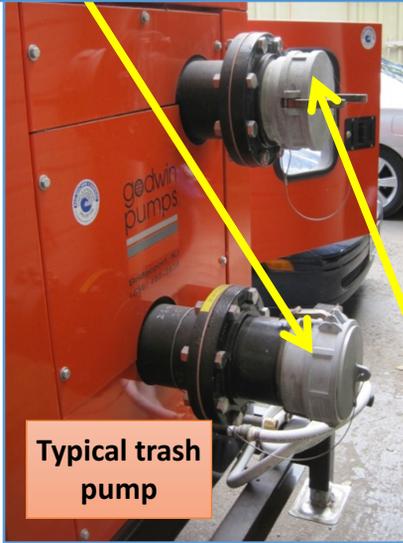


Typical check valve-to-bypass port
coupler/adapter

Next

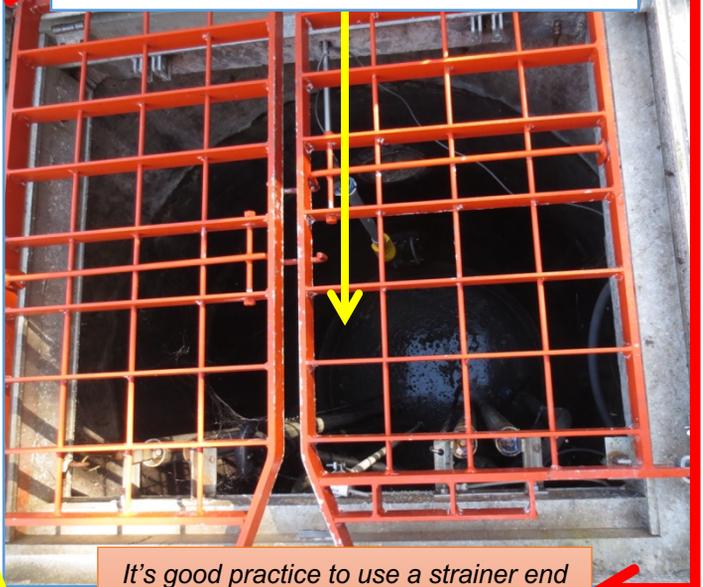
Bypass to Force Main

Connect a suction hose with strainer-end to the intake port



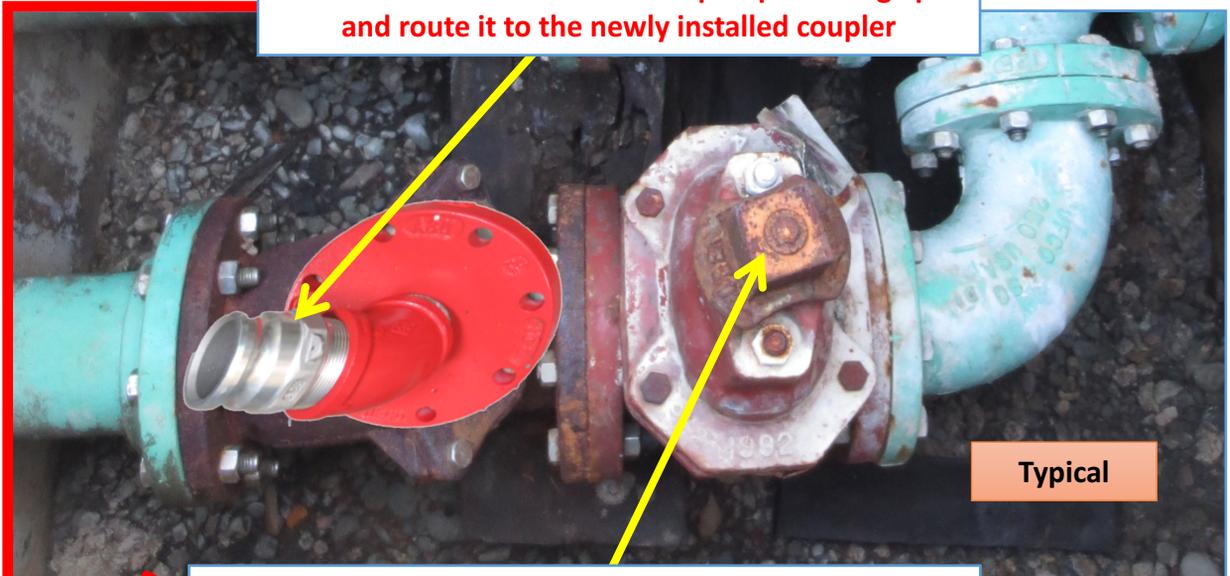
Typical trash pump

Lower the suction hose into the wet well



It's good practice to use a strainer end on the suction hose whenever possible

Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Typical

Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

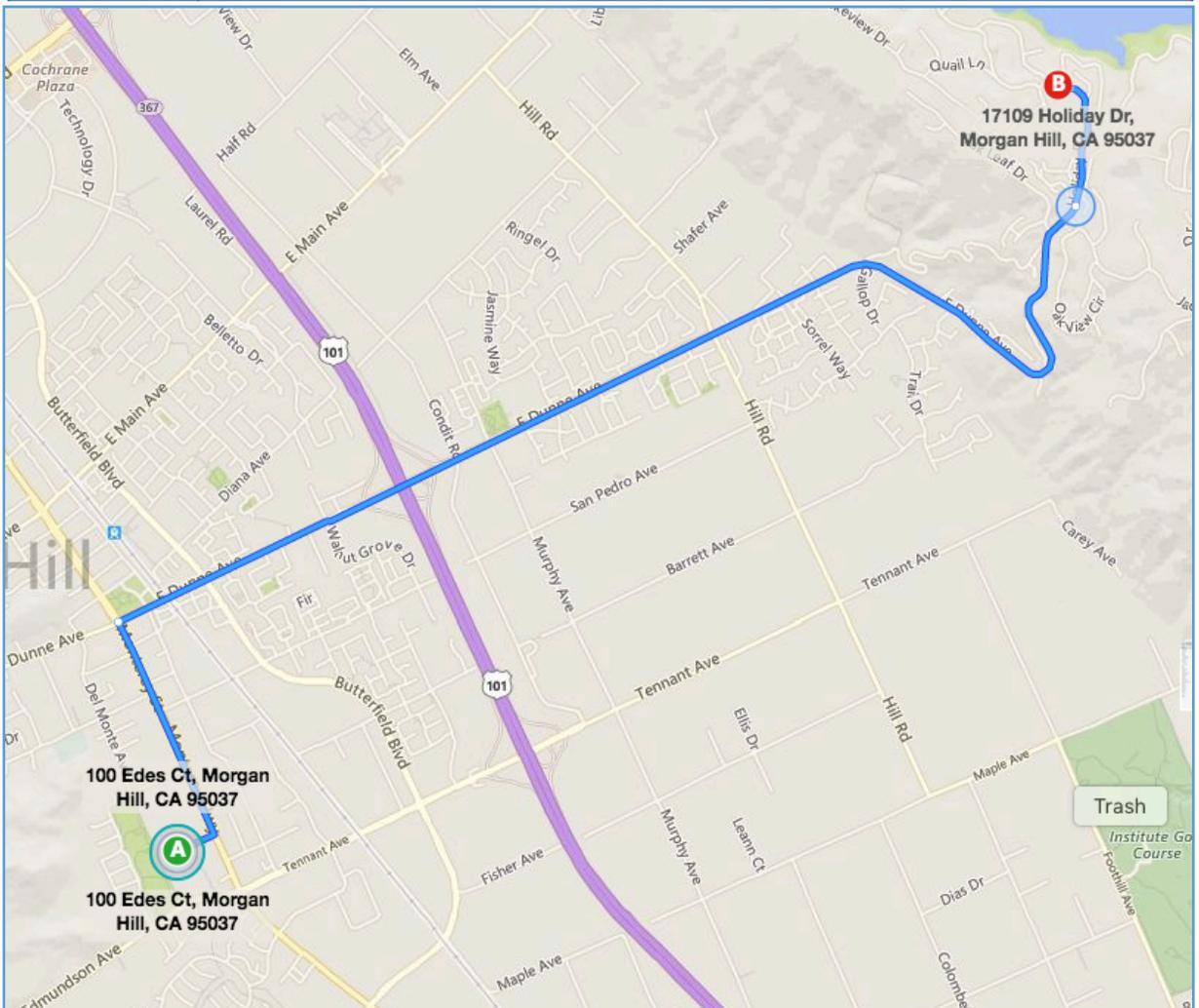


Pump Station PS-F
17109 Holiday Dr.

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
Spill Containment	15
Pump Station Power Map	16
Pump Station Control System	17
Lockout/Tagout Procedures	21
Generator Operation	24
Bypass to Force Main	29
Contact Information	35
System Map	39

Pump Station Technical Information

Name	PS-F – 17109 Holiday Drive Pump Station
Address	17109 Holiday Drive, Morgan Hill, CA 95037
Lat., Long.	37.14967, -121.594683
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Turn right on E Dunne Ave., bear left on Holiday Dr. Pump station will be on your left at Shady Ln. Drive



Pump Station Technical Information

Station Information	
Wet well dimensions & capacity	Tank 1: 8' diameter x 18' deep; 6,768 gallons Tank 2: 6' x 6' x 10' deep; 2,963 gallons Tank 3: 6' x 6' x 10' deep; 2,963 gallons Tank 4: 6' x 6' x 10' deep; 2,963 gallons Total Capacity: 15,657 gallons
Est. hold time (dry weather)	14 hours
Low point (likely overflow point)	Manhole at pump station Approx. GPS: 37.149649, -121.594813
Upstream pump station(s)	PS-D
Downstream pump station	WWTP
Forcemain Data	4" x 2,018'
Discharge location	37.147026, -121.599011

Pump Capacities		
Pump	Motor & Pump	Capacity
#1	Flygt 3153/273, 23hp, 240v 3-phase	130 gpm
#2	Flygt 3153/273, 23hp, 240v 3-phase	130 gpm

Station Power		
Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038030
	PG&E Meter #	1009448839
	PG&E Outage Block	50
	Priority	Sewer pump station
Backup Generator	The station is not equipped with a permanently installed backup generator, however it is equipped with a manual transfer switch and a quick connect for a portable generator	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port, however the station may be bypassed by installing an adapter onto one of the check valves.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

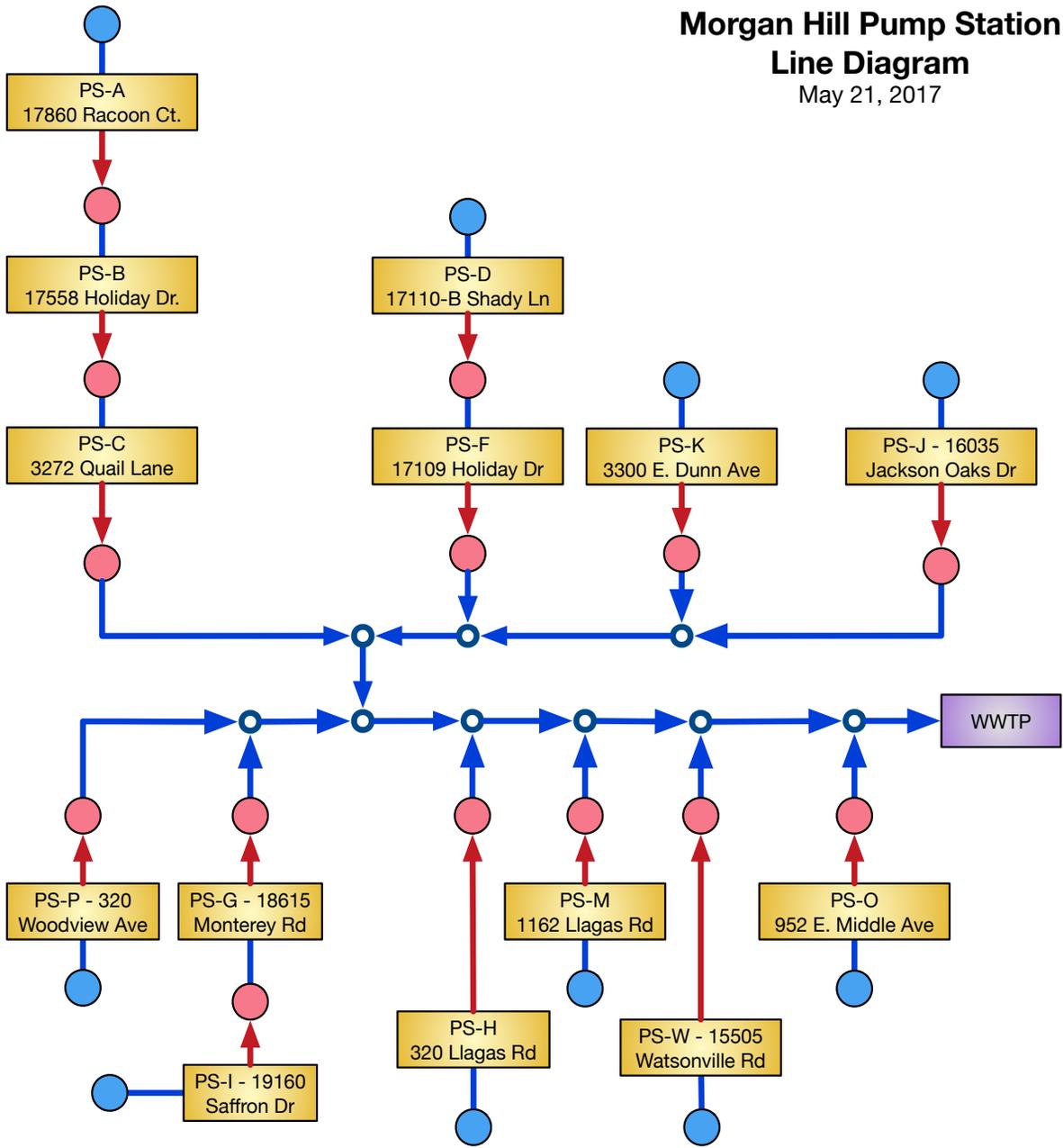
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

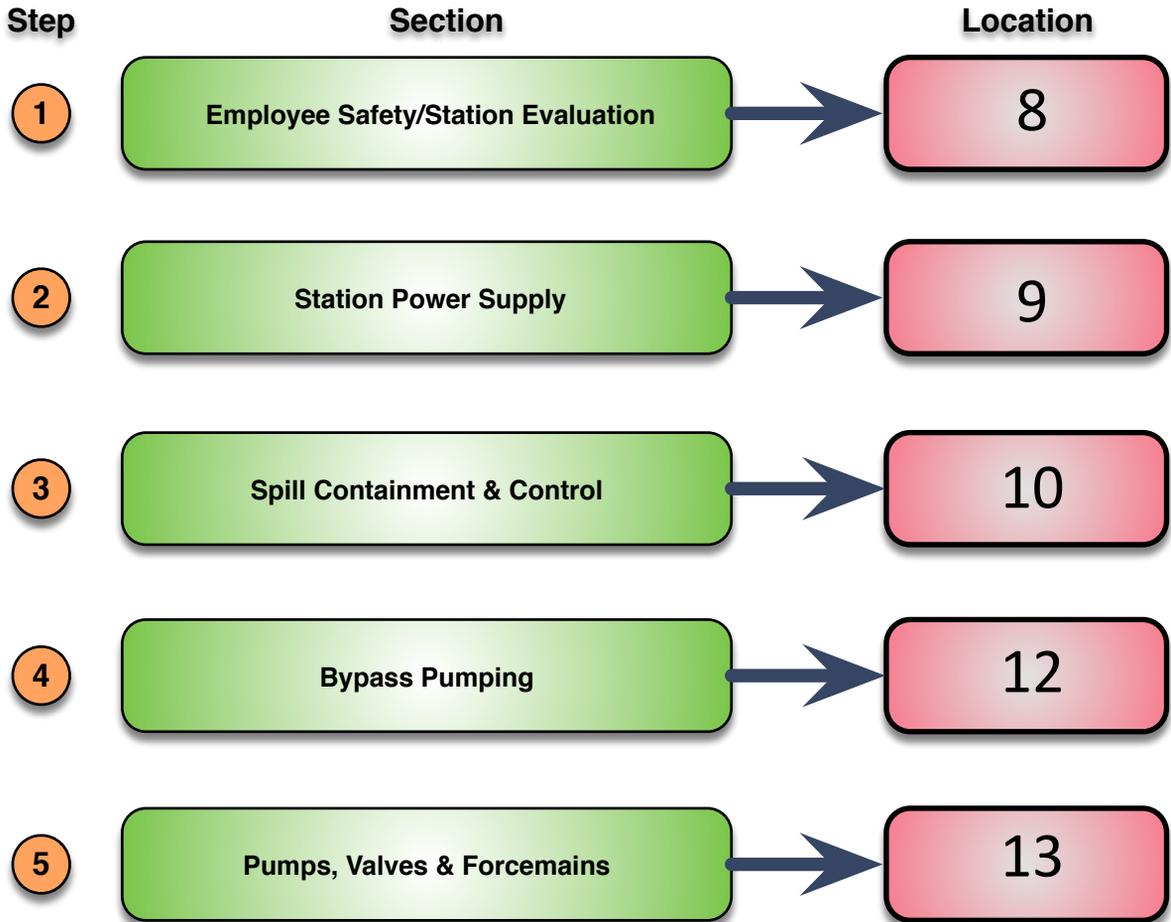
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
● Gravity Feed Only	→ Force main & flow direction
● Force Main Discharge	→ Gravity line & flow direction
◆ Force Main Junction	PS Morgan Hill managed PS
○ Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide **Decision Tree Index**

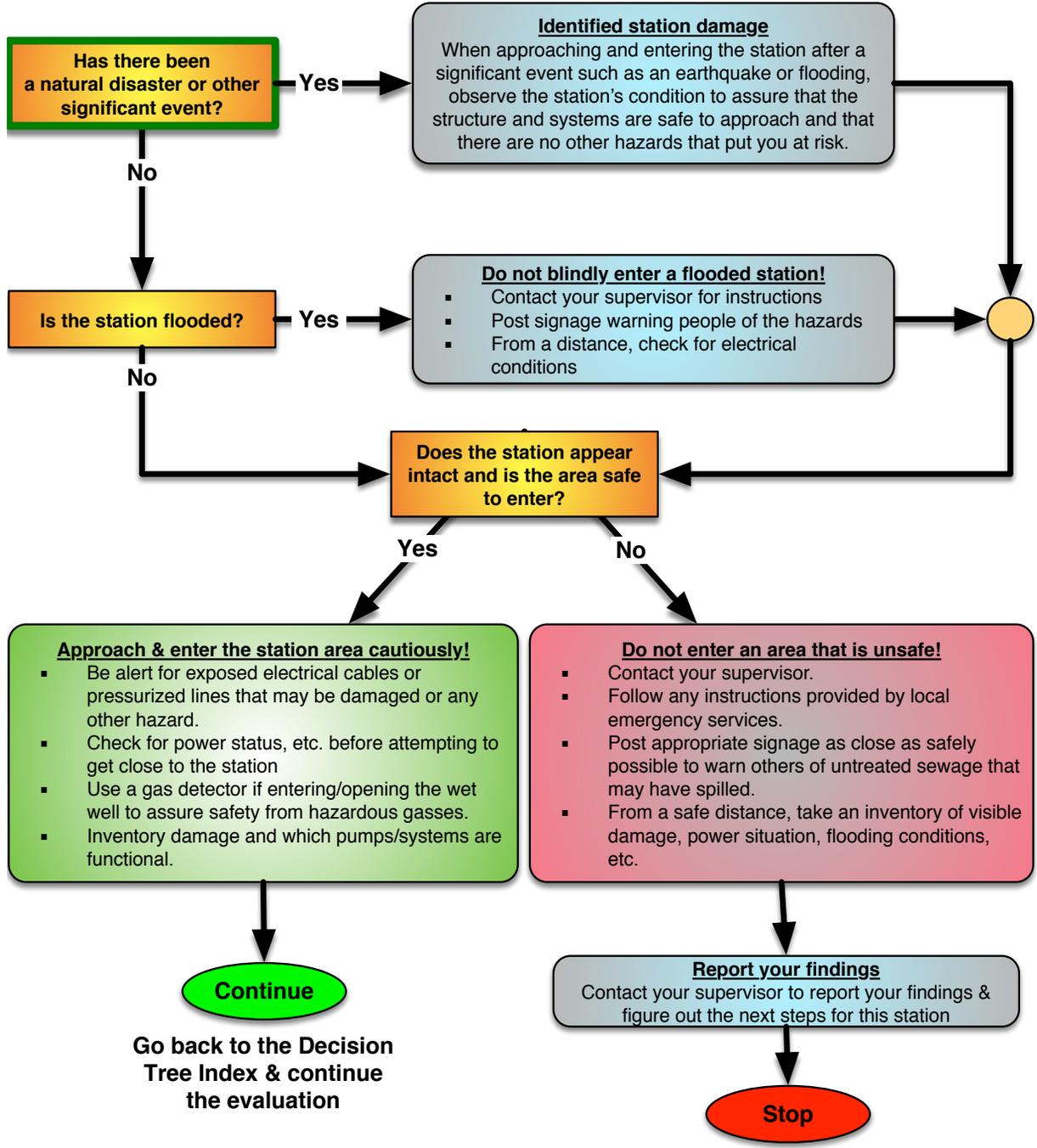


LEGEND

<p> Initial Question</p> <p> Page-To-Page Link</p> <p> Sequence Merge (Watch arrows for flow direction)</p>	<p> Decision Point</p> <p> Task/Direction Item</p>
--	--

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

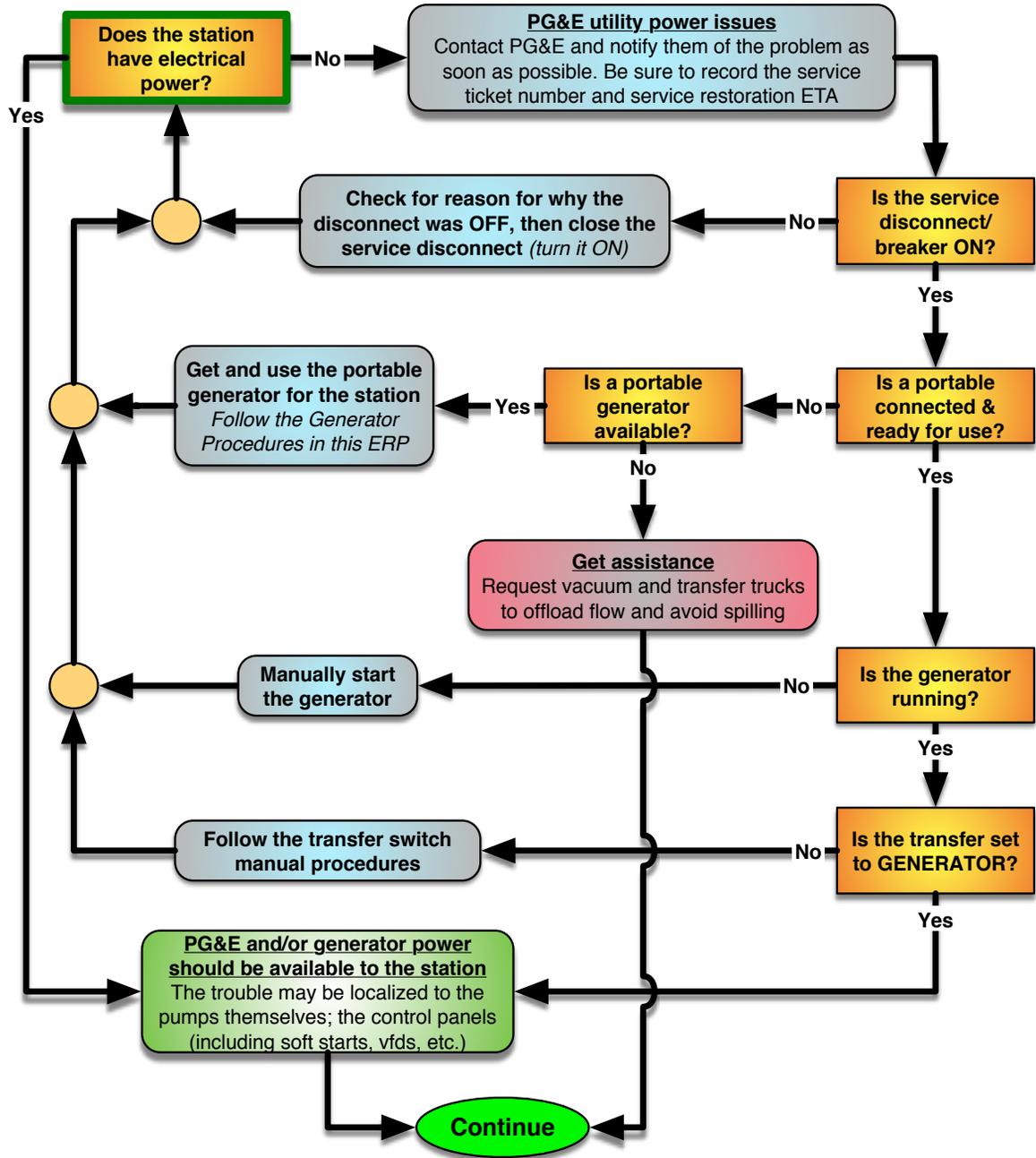


LEGEND

- Initial Question
- Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply



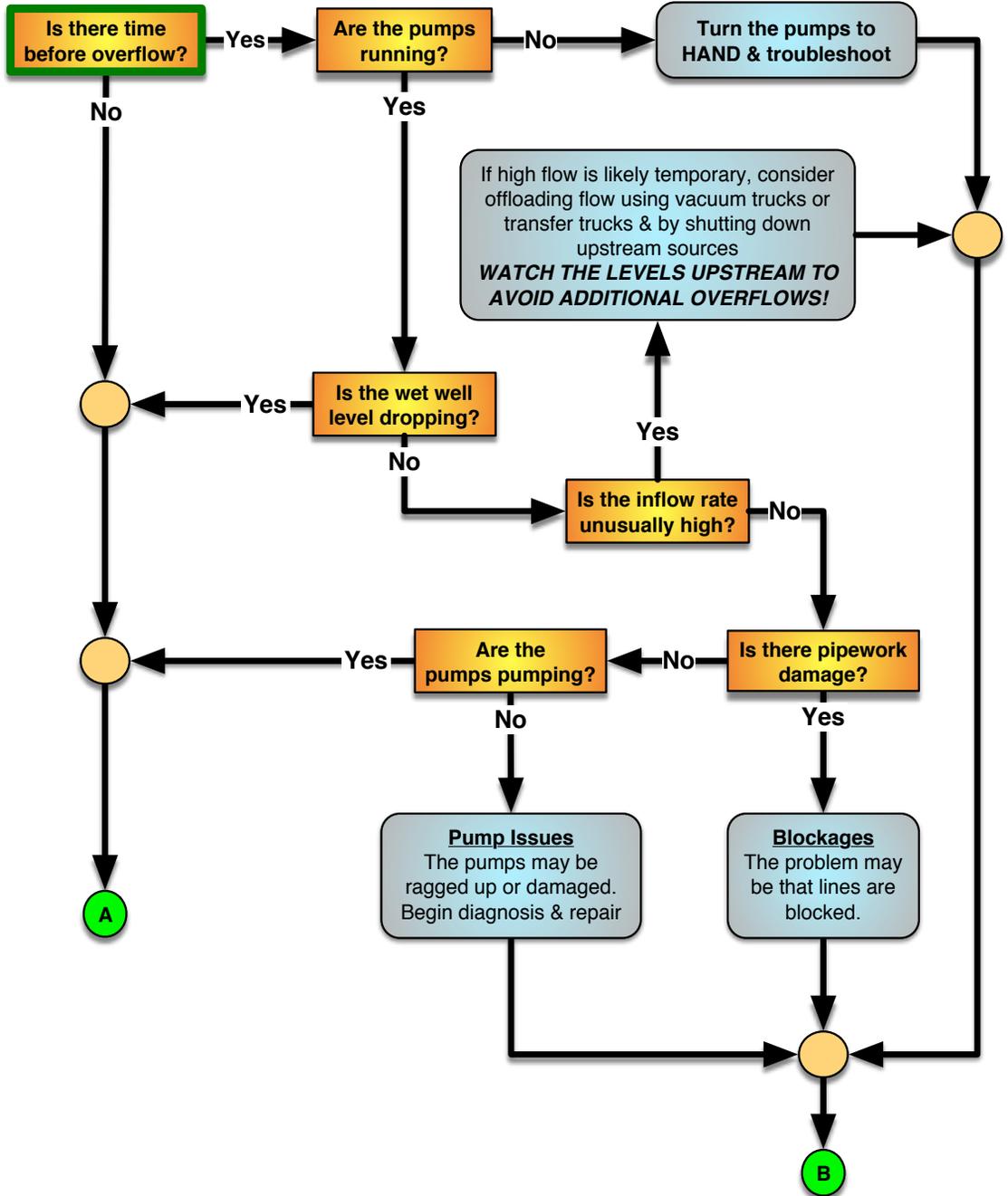
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

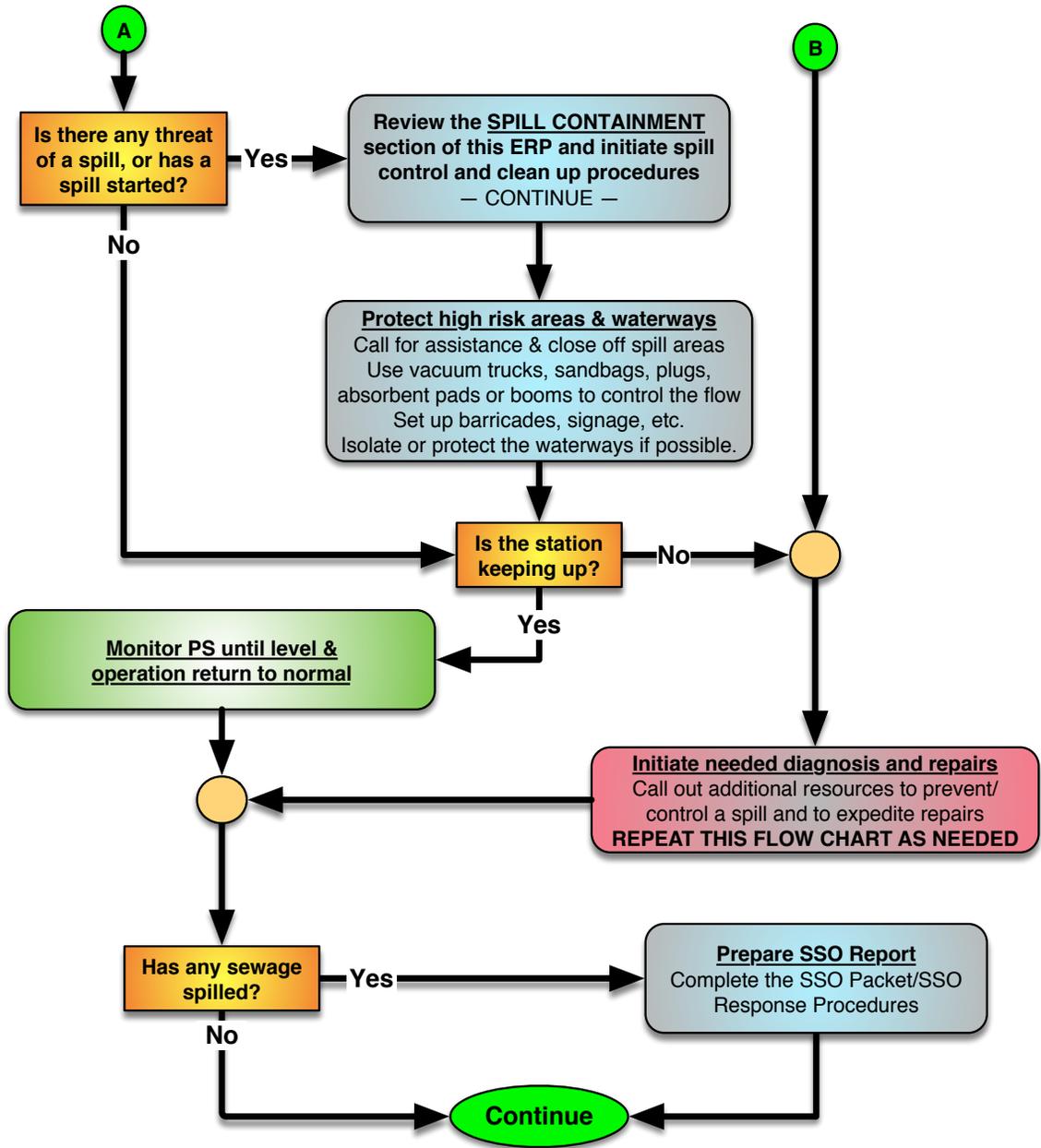
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ● Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - *Continued*



Go back to the Decision Tree Index & continue the evaluation

LEGEND



Initial Question



Page-To-Page



Sequence Merge



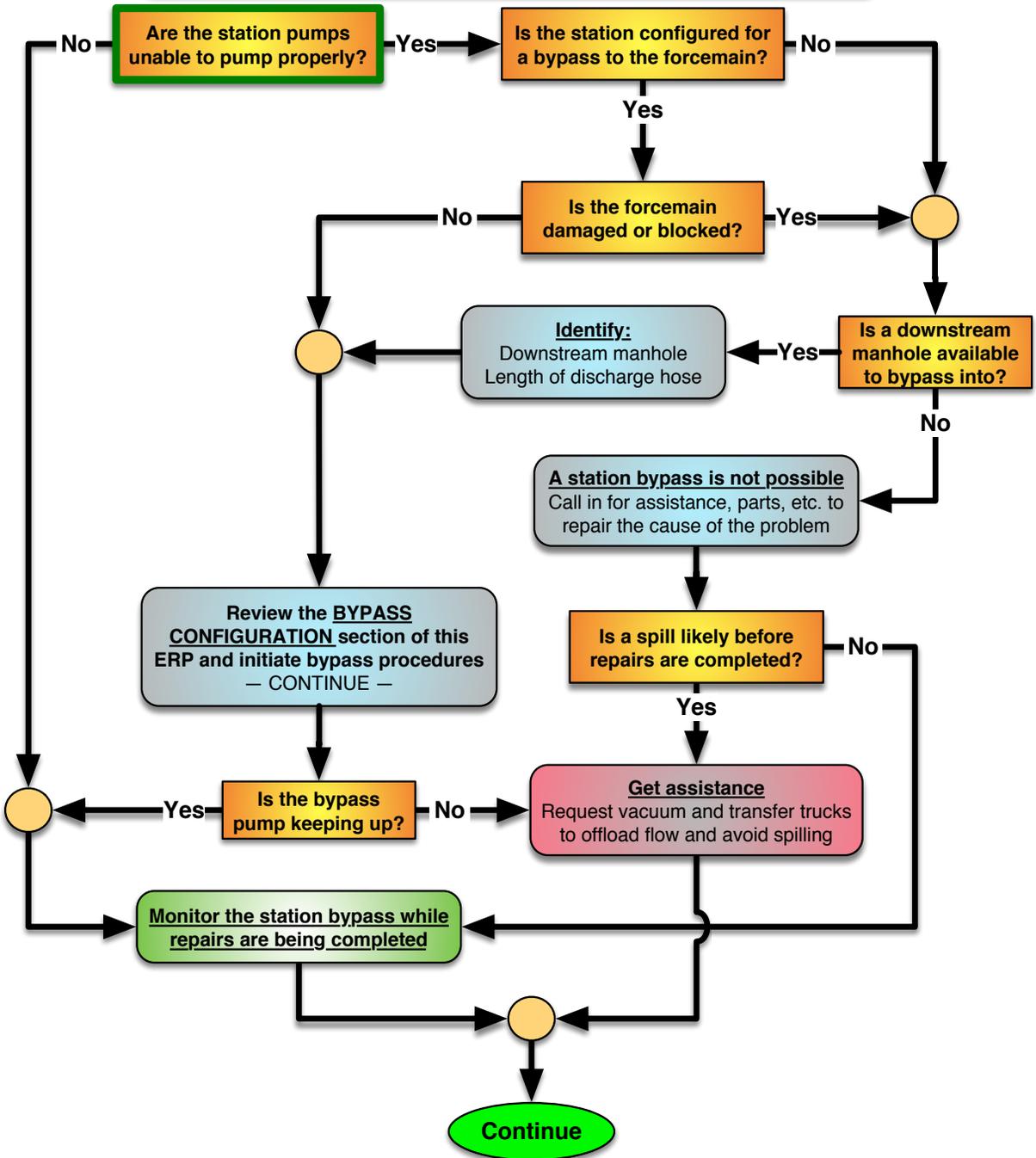
Decision Point



Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



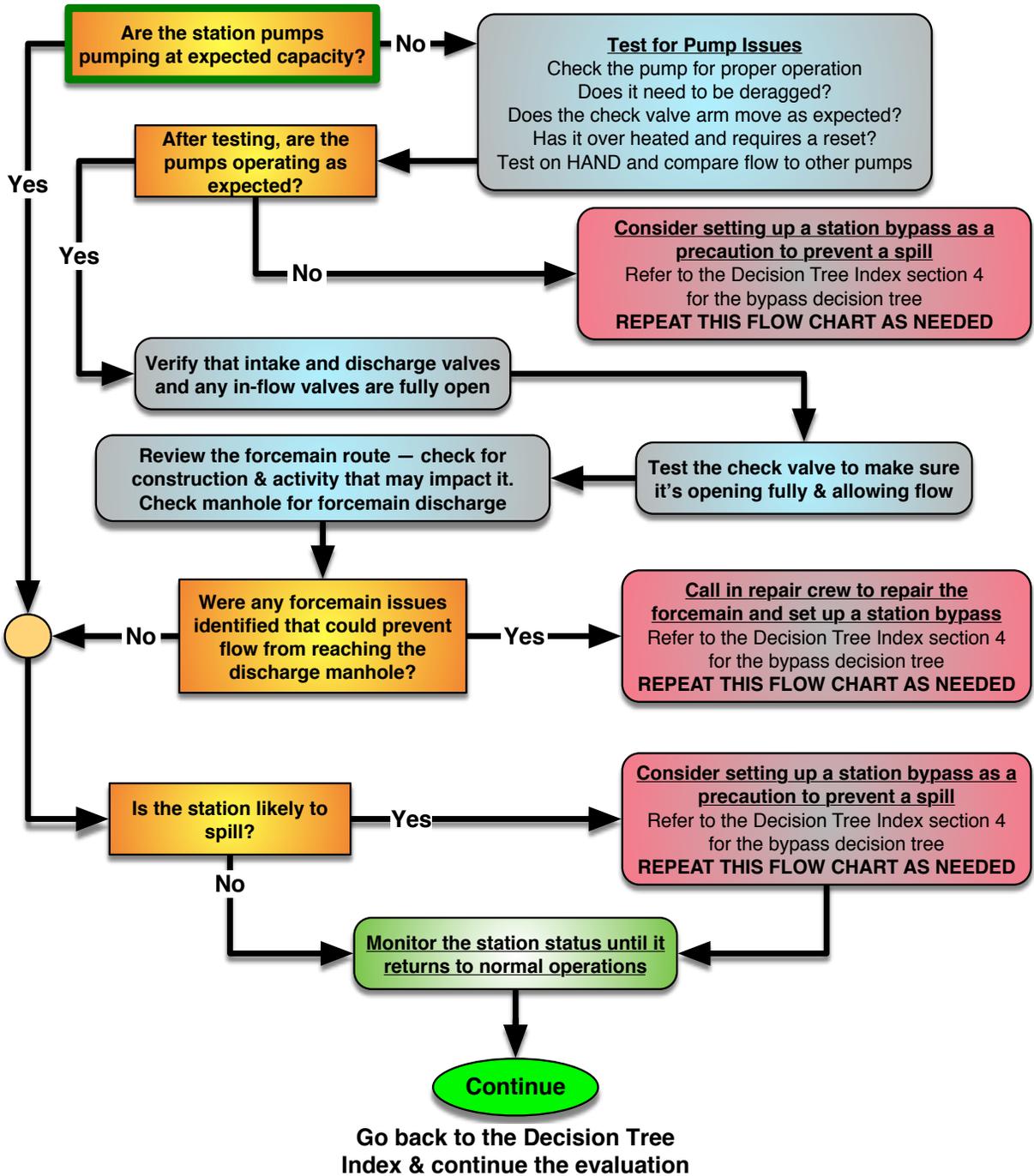
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5 Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND



Initial Question



Page-To-Page



Sequence Merge



Decision Point



Task/Direction Item

Spill Notification Procedures

Pump Station F is located in the Jurisdiction of the
San Francisco Bay Regional Water Control Board (#2)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

See the Contact Information Section for contact information
Page 42

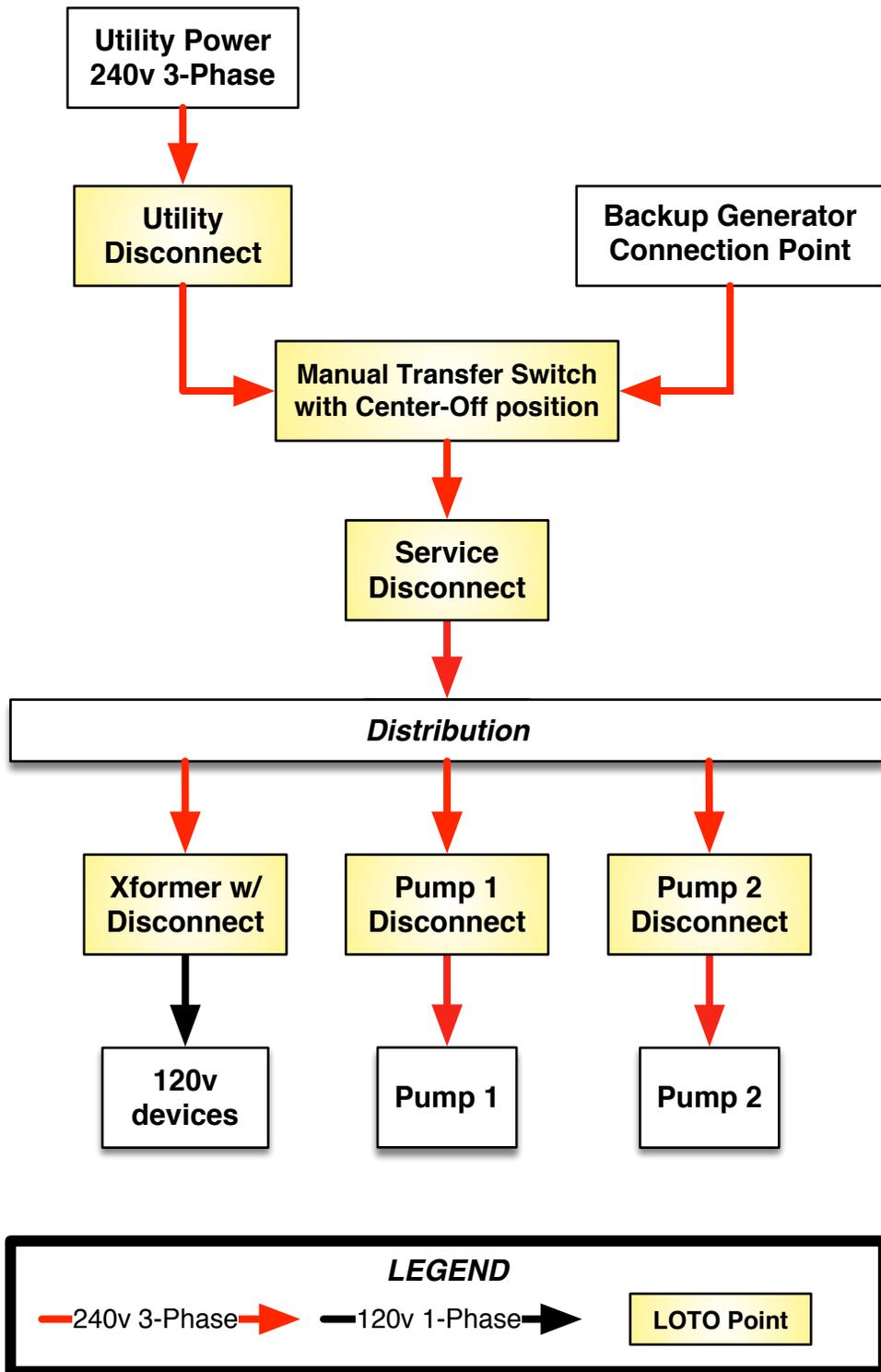
Spill Containment



Potential SSO Impact on State Water

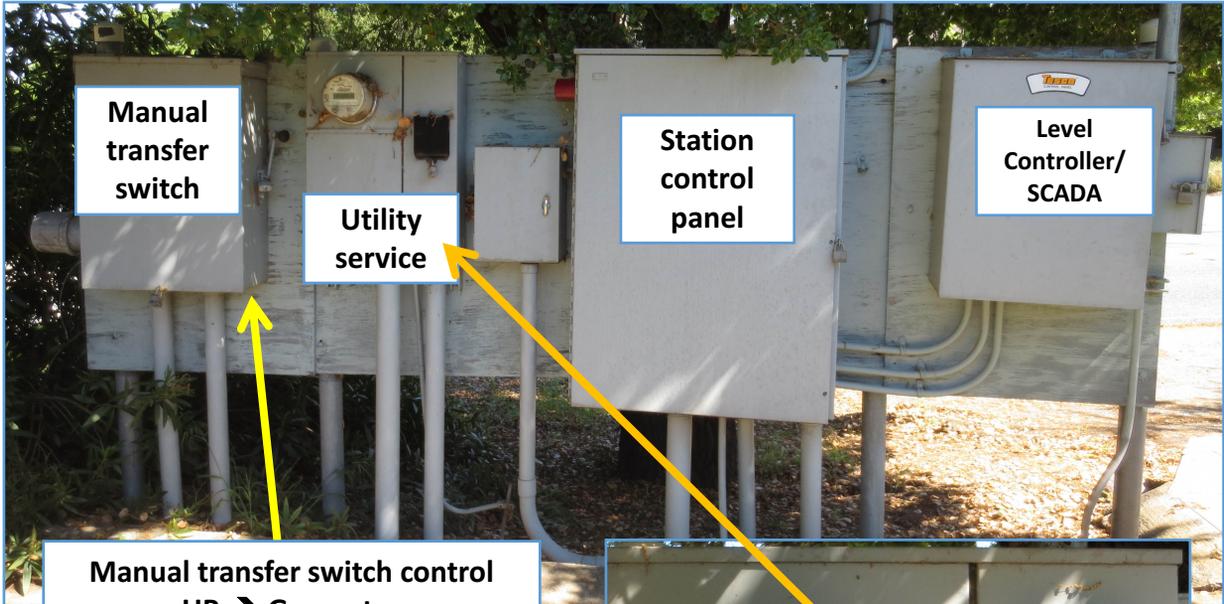
	Type	Position from low point	Containment
1	Pump station	10' E	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low point (two adjacent manholes)	-	
3	<i>Expected flow direction from system low point</i>		

Pump Station Power Map

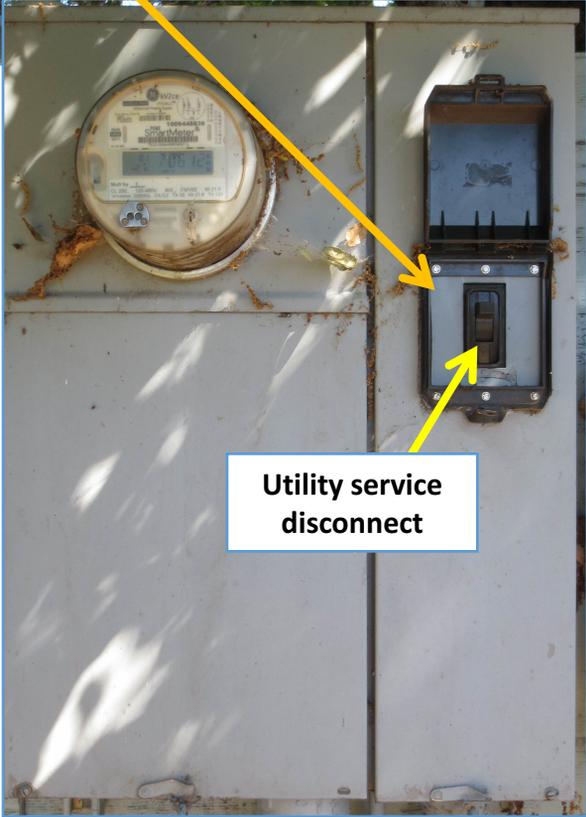
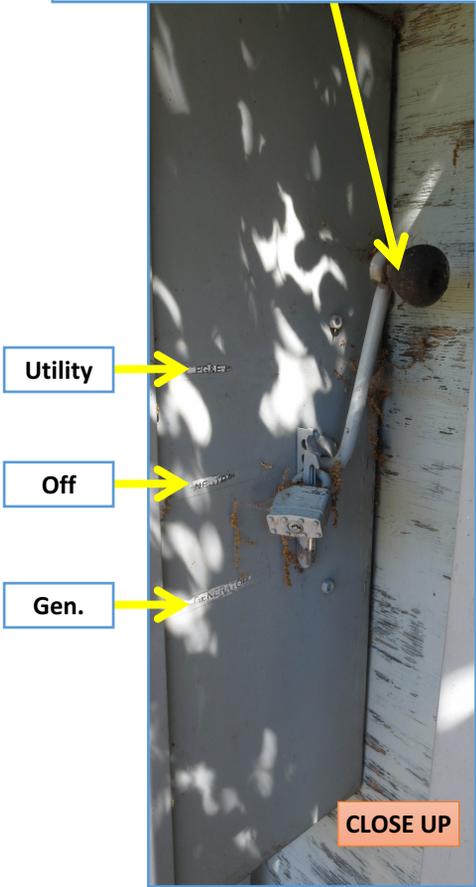


Done

Pump Station Control System

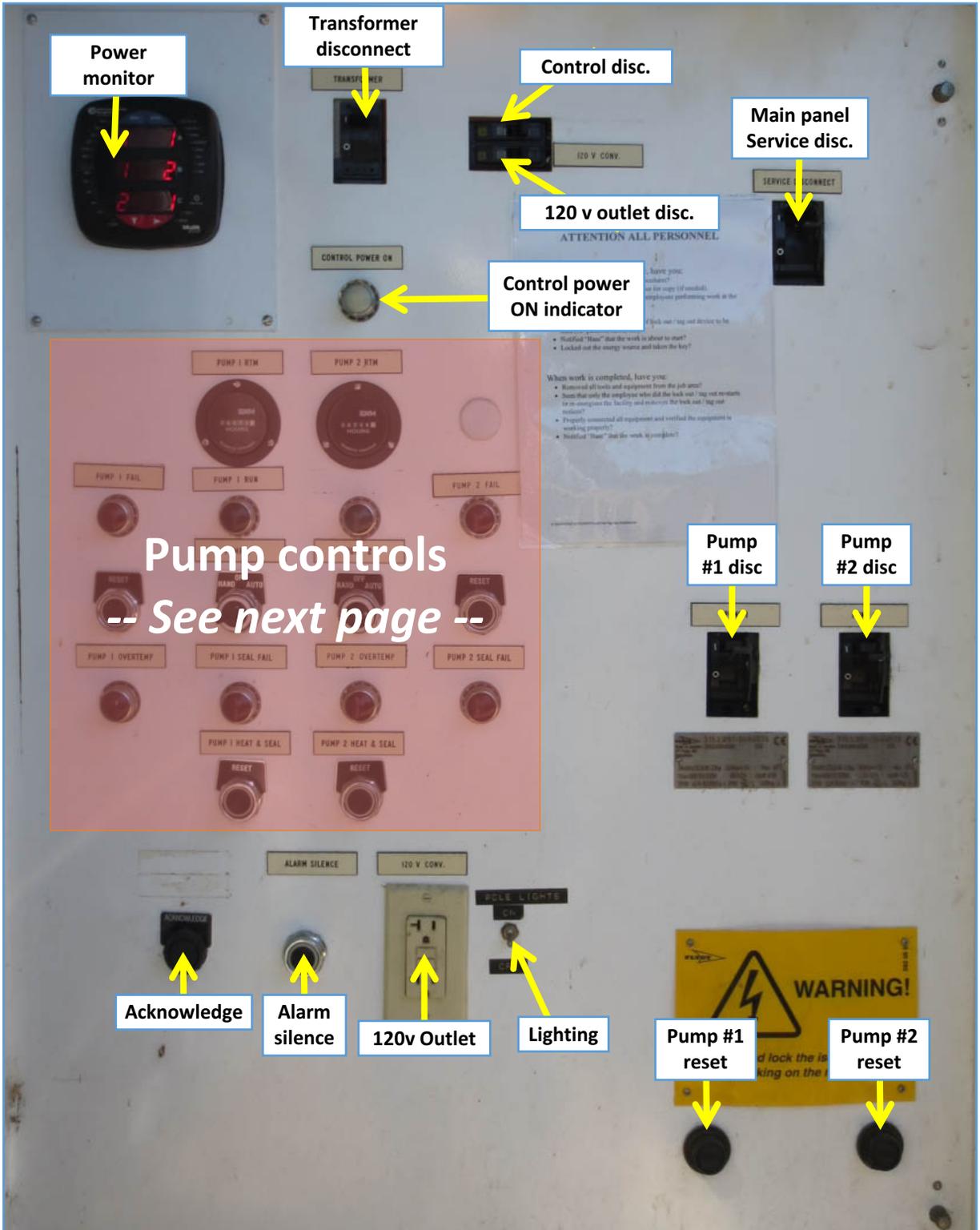


Manual transfer switch control
UP → Generator
Down → PG&E Utility



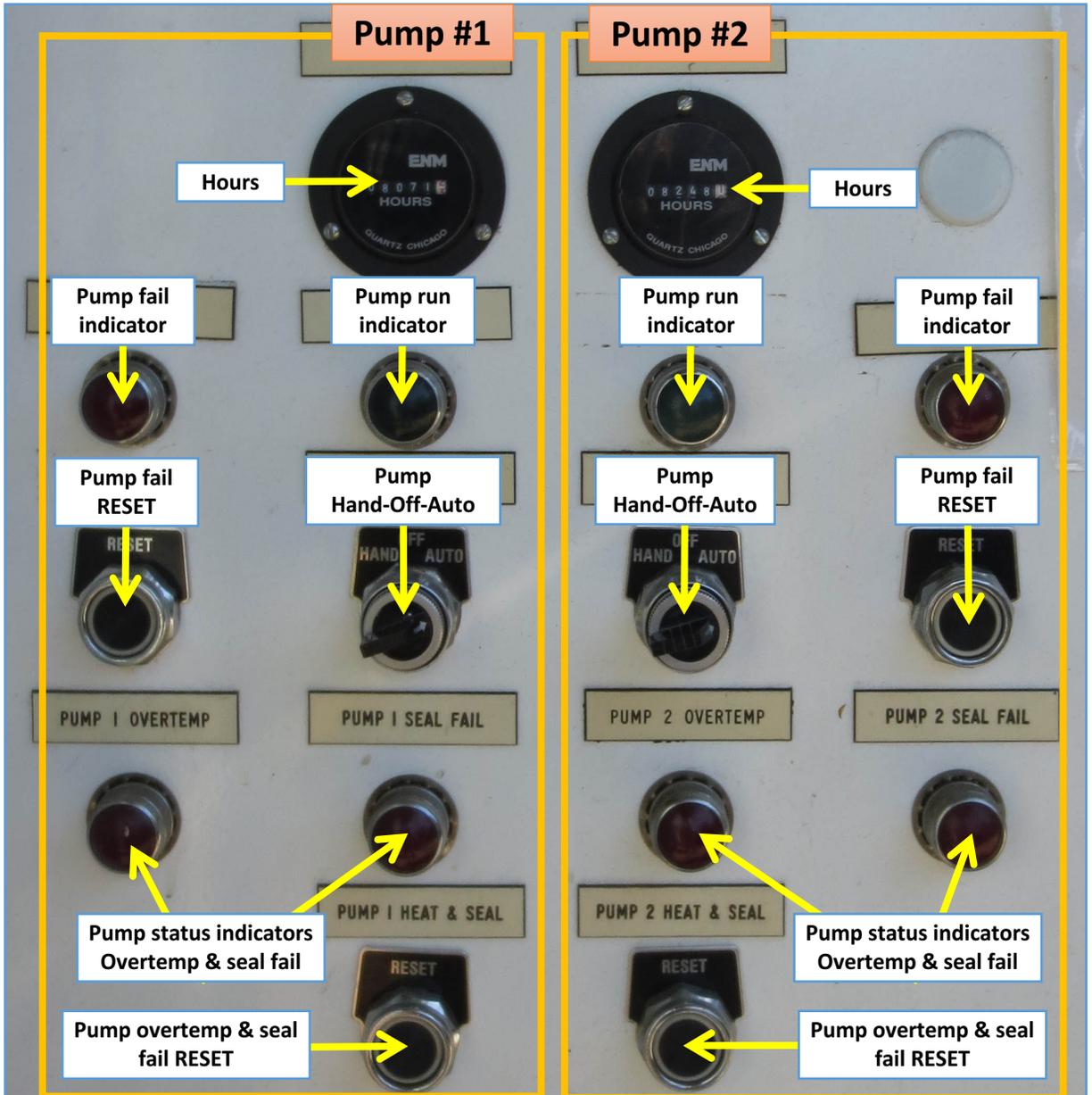
Next

Pump Station Control System



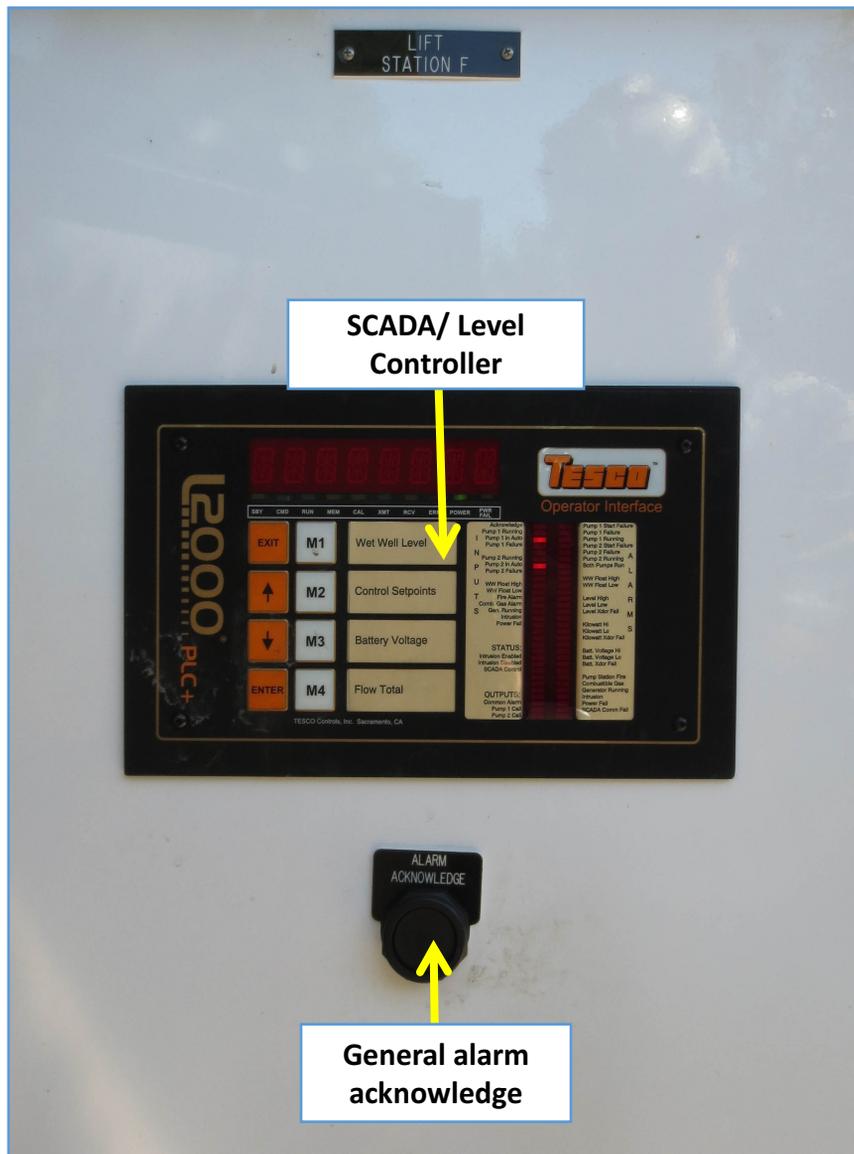
Next

Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and potentially by portable backup generator. Care must be taken to disable all energy sources.

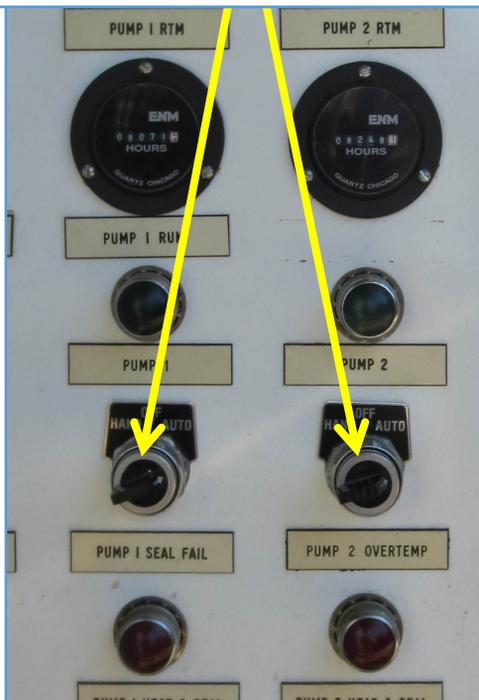
Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

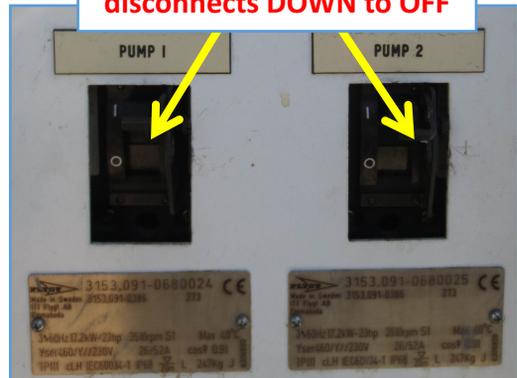
1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down (if attached) and disable the generator
4. Move the utility service disconnect to OFF & install LOTO device & tag
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



Next

Lockout/Tagout Procedures

If a portable generator is attached, shut it down and disable it from starting

Move the utility service disconnect
DOWN to OFF & install a LOTO device



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

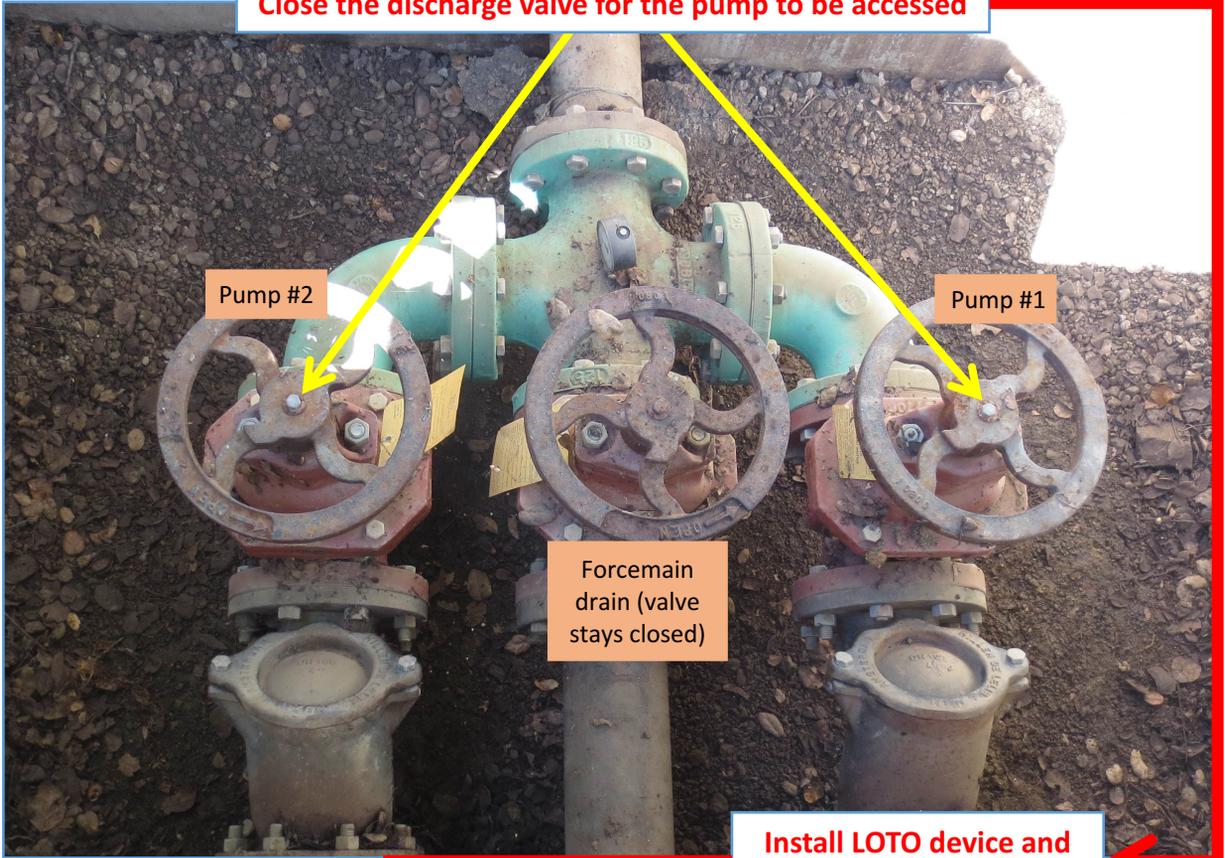
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

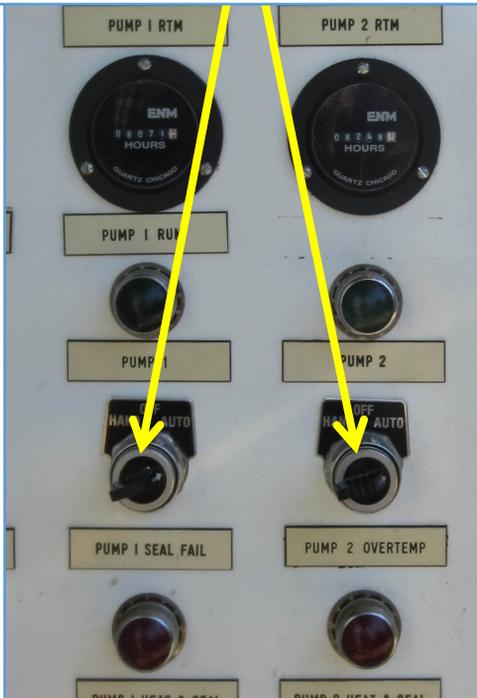
Generator Operation

Portable Generator Connection & Operation

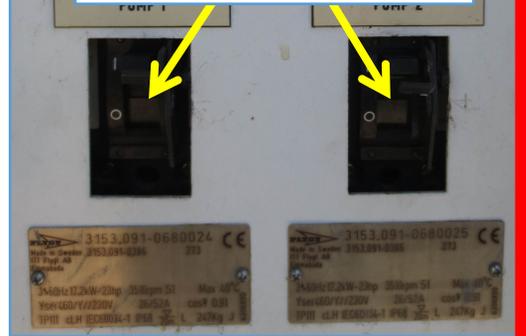
- Reduce the potential load on the station – Shut pumps off
- Shut the utility service disconnect OFF
- Connect the generator
- Unlock and move the manual transfer switch to GENERATOR
- Start the generator & then turn the generator output breaker ON
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



**Move the utility service
disconnect DOWN to OFF**



Next

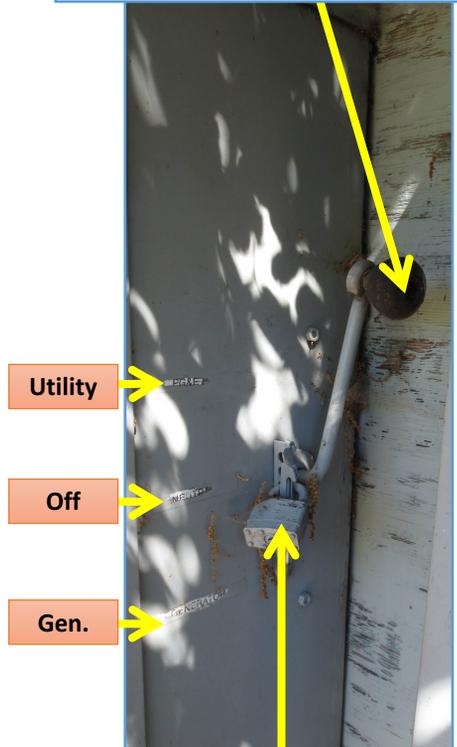
Generator Operation

This station requires 240v 3-phase power
Be sure the generator is appropriately sized and configured for use

Connect the portable generator to the emergency generator power port



Unlock and move the manual transfer switch handle DOWN to GENERATOR



Always relock the handle before leaving the pump station

Follow the appropriate Portable Generator Procedures for starting and bringing the portable generator online
→ *Once it's operating, continue*

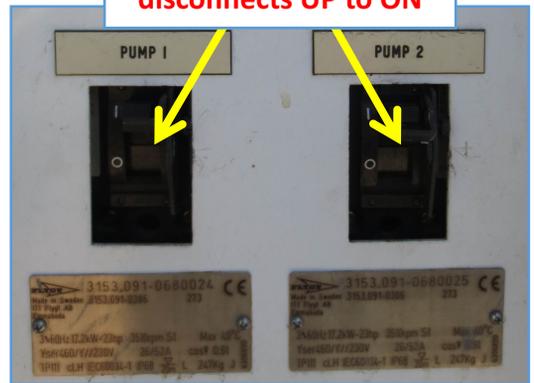
Next

Generator Operation

AS DESIRED: Enable station systems

Move BOTH pump disconnects UP to ON

Rotate BOTH pump Hand-Off-Auto switches to HAND or AUTO as desired



At this point, the station should be running on generator power and completely independent of utility grid power

Done

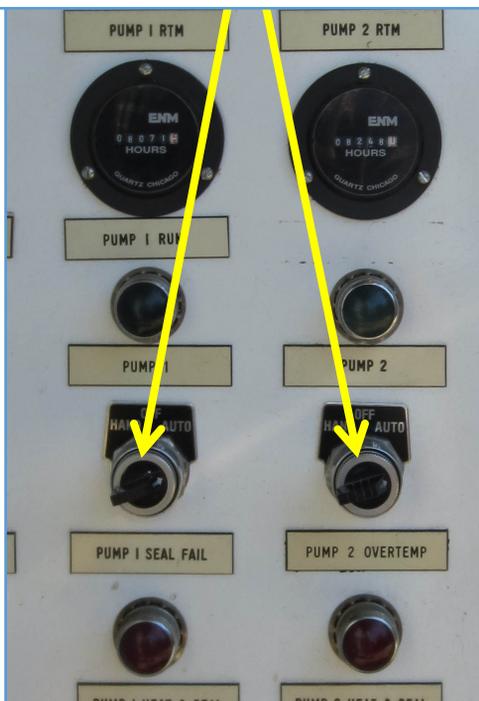
Generator Operation

To return to utility power

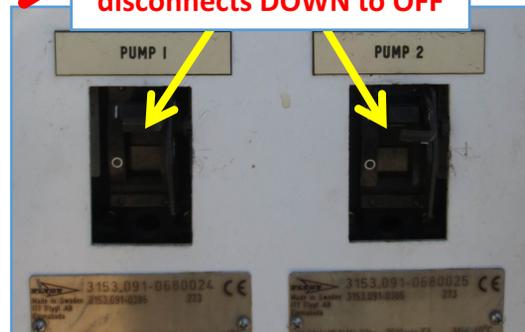
- Reduce the potential load on the station – Shut pumps off
- Shut the generator OFF & disconnect the generator
- Unlock and move the manual transfer switch to UTILITY/PG&E POWER
- Move the main utility service breaker to ON
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



**Follow the appropriate Portable Generator Procedures for shut down and disabling the portable generator
→ *Once it's fully stopped, continue***

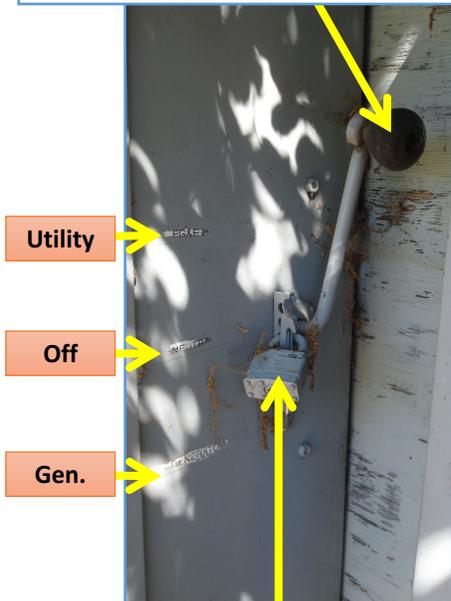
**Disconnect the portable generator from
the emergency generator power port**



Next

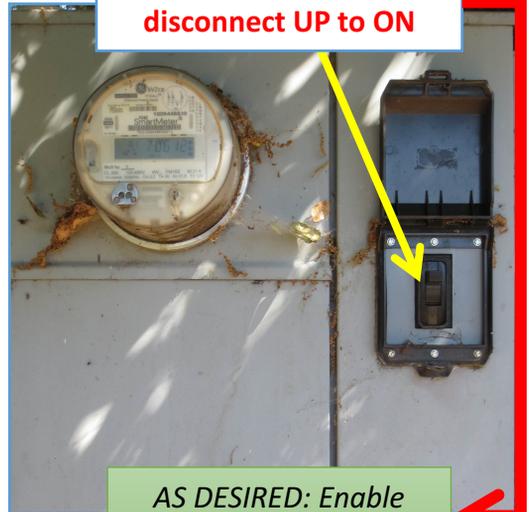
Generator Operation

Unlock and move the manual transfer switch handle UP to UTILITY/PG&E POWER



Always relock the handle before leaving the pump station

Move the utility service disconnect UP to ON



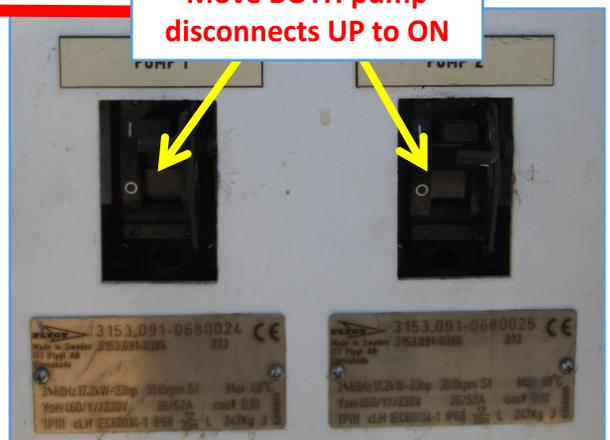
AS DESIRED: Enable station systems

Rotate BOTH pump Hand-Off-Auto switches to HAND or AUTO as desired



At this point, the station should be running on UTILITY/PG&E Power

Move BOTH pump disconnects UP to ON



Done

Bypass to Force Main

Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's use SOP for operation & begin bypass pumping
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the valves needed to return to normal operations

Begin Procedure

Park the pump to route the hose with minimal bends and length whenever possible.

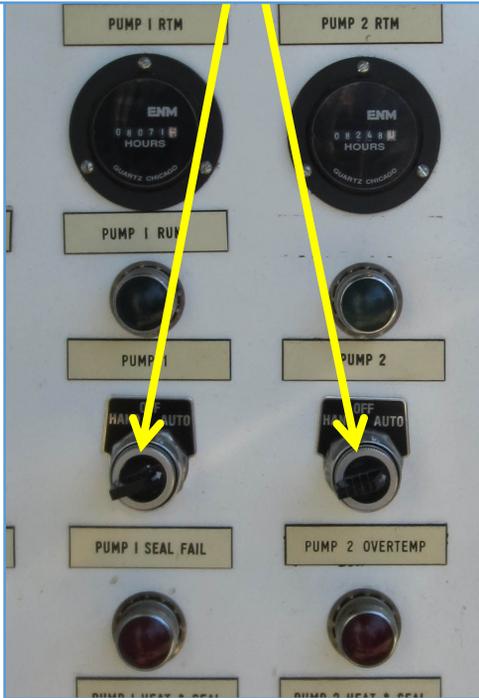


Next

Bypass to Force Main

Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

Rotate BOTH pump Hand-Off-Auto switches to OFF



Move BOTH pump disconnects DOWN to OFF



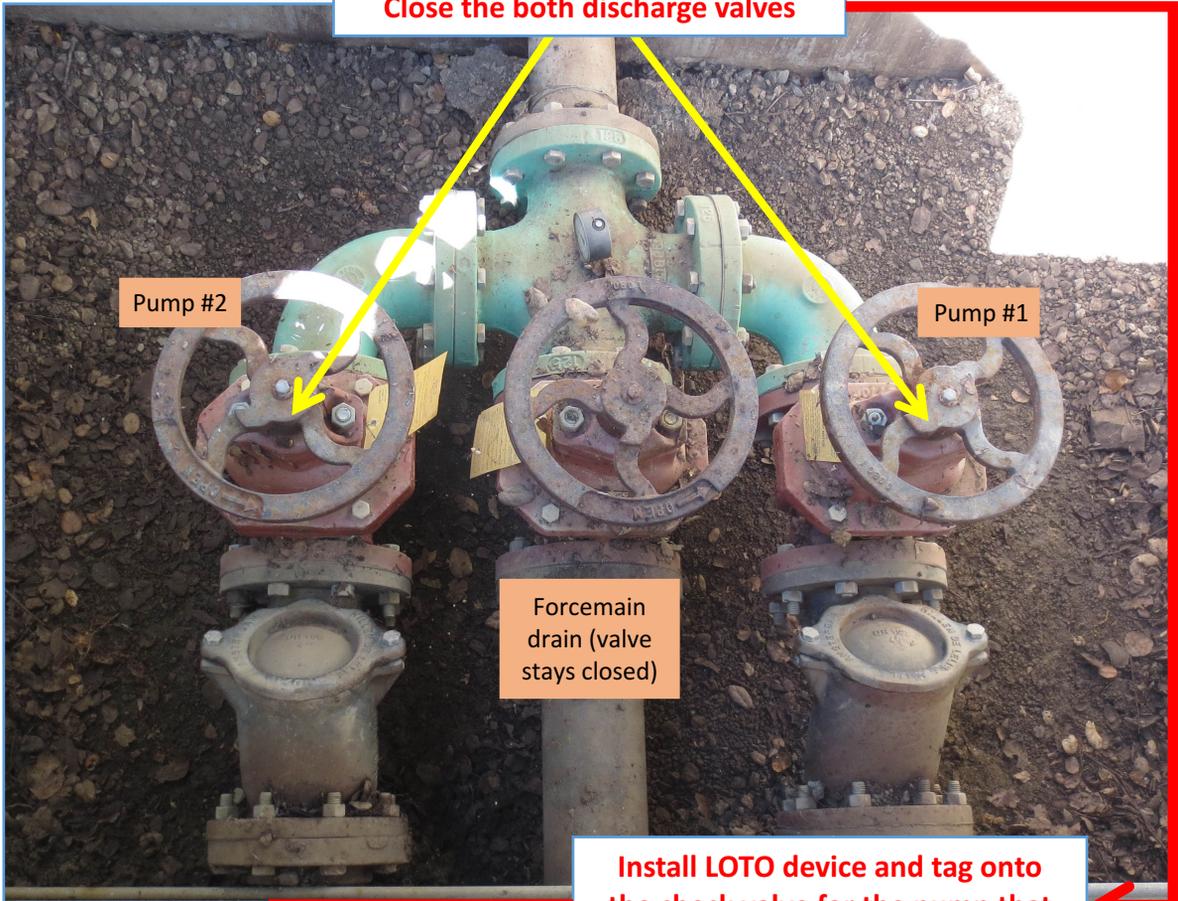
Install a LOTO device on the pump disconnect breaker for the pump that will have its check valve worked on



Next

Bypass to Force Main

Close the both discharge valves



Install LOTO device and tag onto the check valve for the pump that will have it's check valve worked on

Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

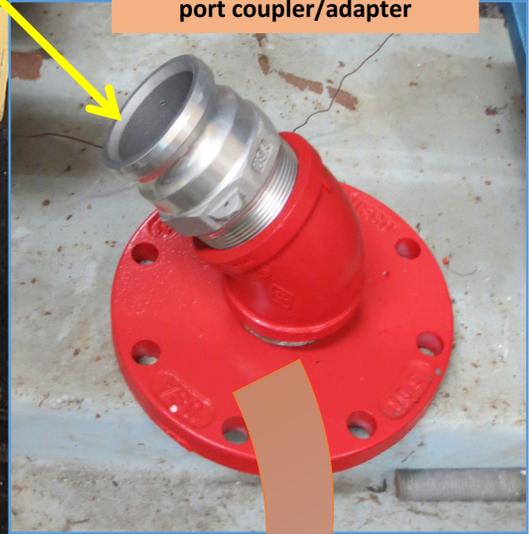
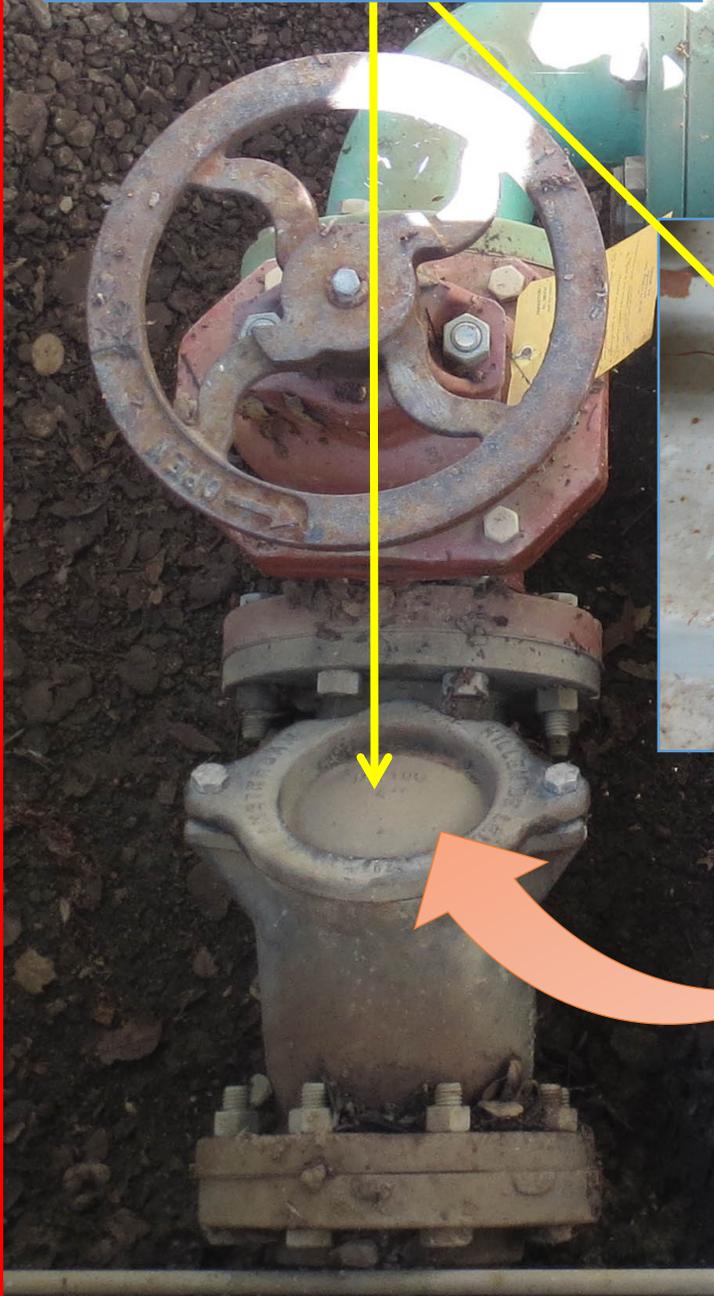


Next

Bypass to Force Main

Install a flange/coupler onto the bypass valve

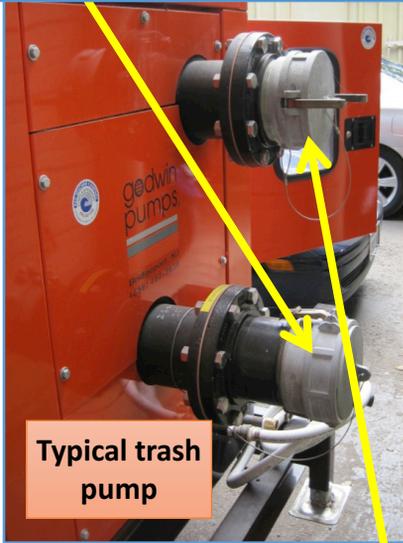
Typical check valve-to-bypass port coupler/adapter



Next

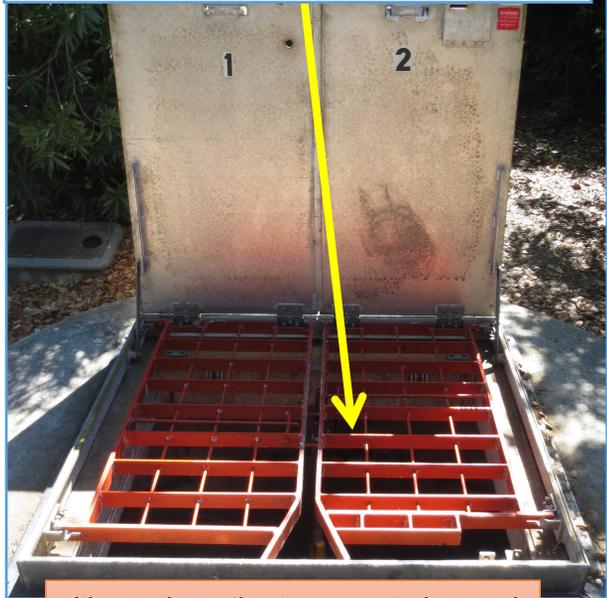
Bypass to Force Main

Connect a suction hose with strainer-end to the intake port



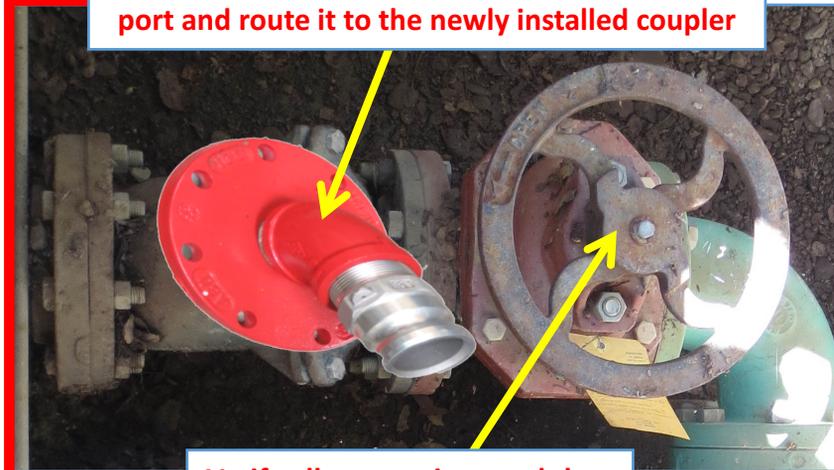
Typical trash pump

Lower the suction hose into the wet well



It's good practice to use a strainer end on the suction hose whenever possible

Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

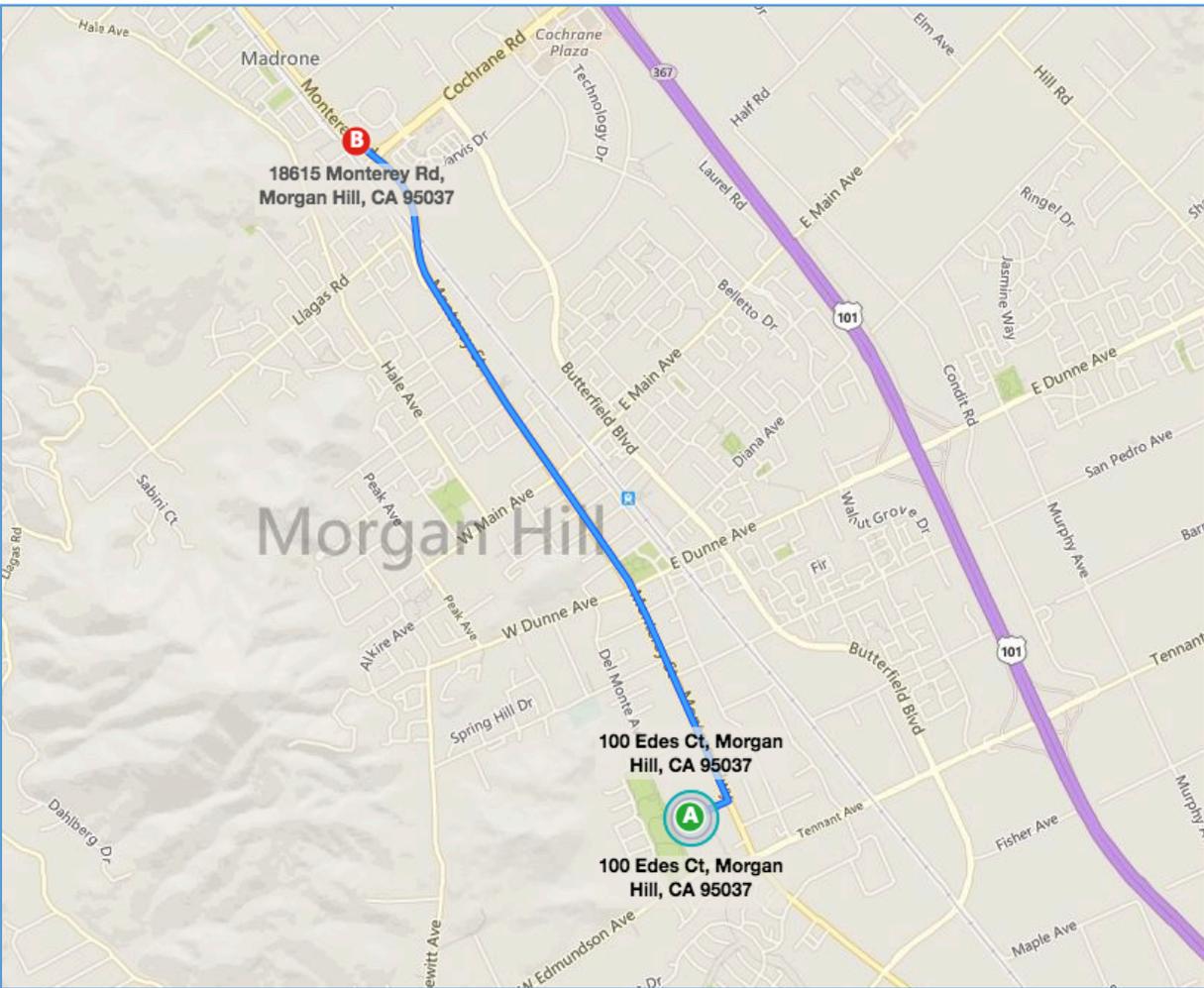


Pump Station PS-G
18615 Monterey Rd

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
Spill Containment	15
Pump Station Power Map	16
Pump Station Control System	17
Lockout/Tagout Procedures	22
Generator Operation	26
Bypass to Force Main	38
Contact Information	44
System Map	48

Pump Station Technical Information

Name	PS-G – 18615 Monterey Road Pump Station
Address	18615 Monterey Rd., Morgan Hill, CA 95037
Lat., Long.	37.144601, -121.665623
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Turn left onto Cochrane Rd. Lift station is located just North of the gas station.



Pump Station Technical Information

Station Information	
Wet well dimensions & capacity	Tank 1: 10' diameter x 16' deep; 9,400 gallons Total Capacity: 9,400 gallons
Est. hold time (dry weather)	3 hours
Low point (likely overflow point)	In the roadway near of 125 Sanchez at the edge of the creek overpass Approx. GPS: 37.143929, -121.666657
Upstream pump station(s)	Gravity Only
Downstream pump station	WWTP
Forcemain Data	6" x 1,790'
Discharge location	

Pump Capacities		
Pump	Motor & Pump	Capacity
#1	Flygt 3127/438, 10hp, 240v 3-phase	287 gpm
#2	Flygt 3127/438, 10hp, 240v 3-phase	287 gpm

Station Power		
Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	7082506559
	PG&E Meter #	53118R
	PG&E Outage Block	
	Priority	Sewer pump station
Backup Generator	The station is equipped with a Olympian DP40P2 permanently installed backup generator.	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port. however the station may be bypassed by installing an adapter onto one of the check valves.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

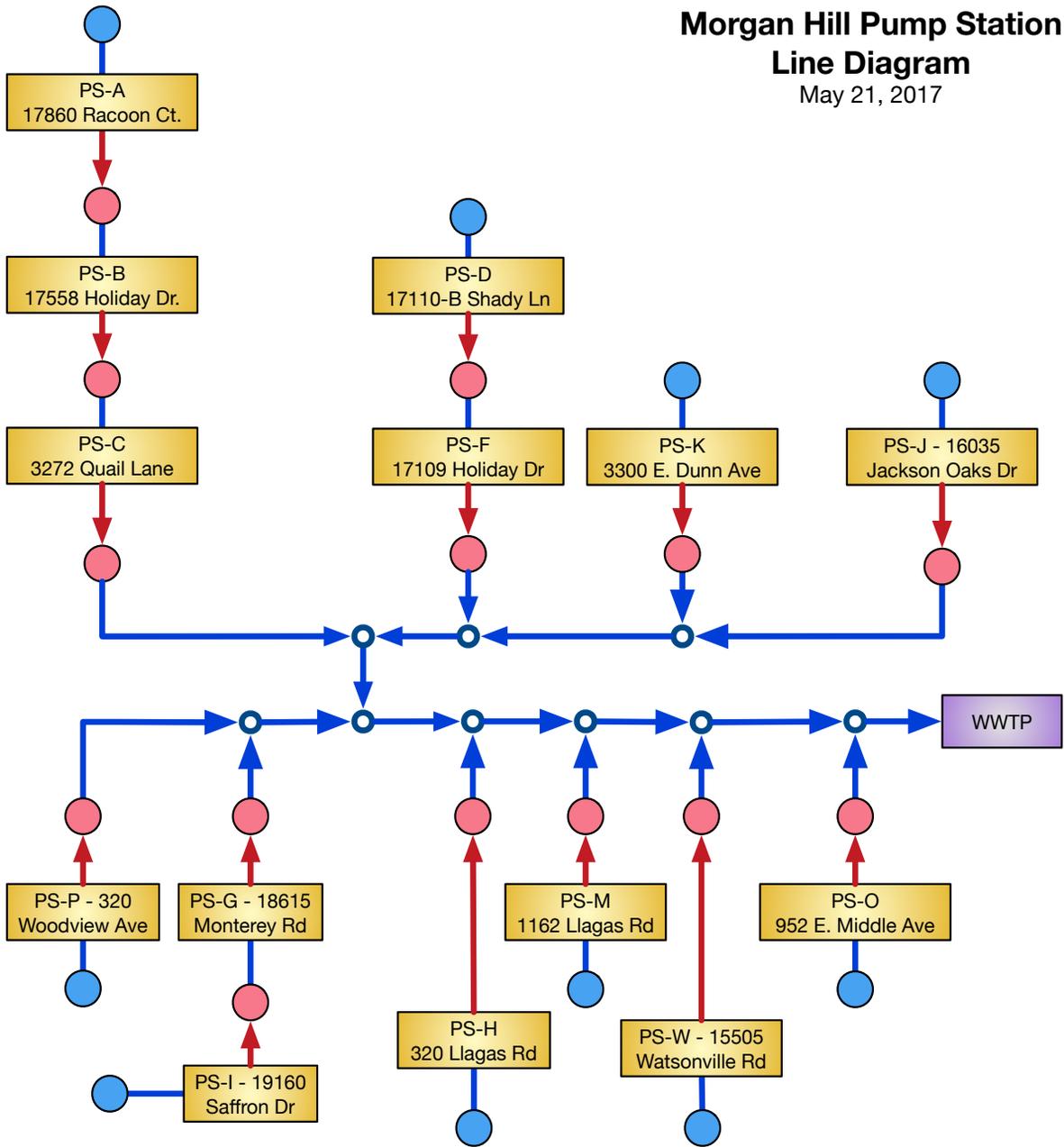
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
Gravity Feed Only	Force main & flow direction
Force Main Discharge	Gravity line & flow direction
Force Main Junction	PS Morgan Hill managed PS
Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide Decision Tree Index

Step	Section	Location
1	Employee Safety/Station Evaluation	8
2	Station Power Supply	9
3	Spill Containment & Control	10
4	Bypass Pumping	12
5	Pumps, Valves & Force mains	13

LEGEND



Initial Question



Decision Point



Page-To-Page Link



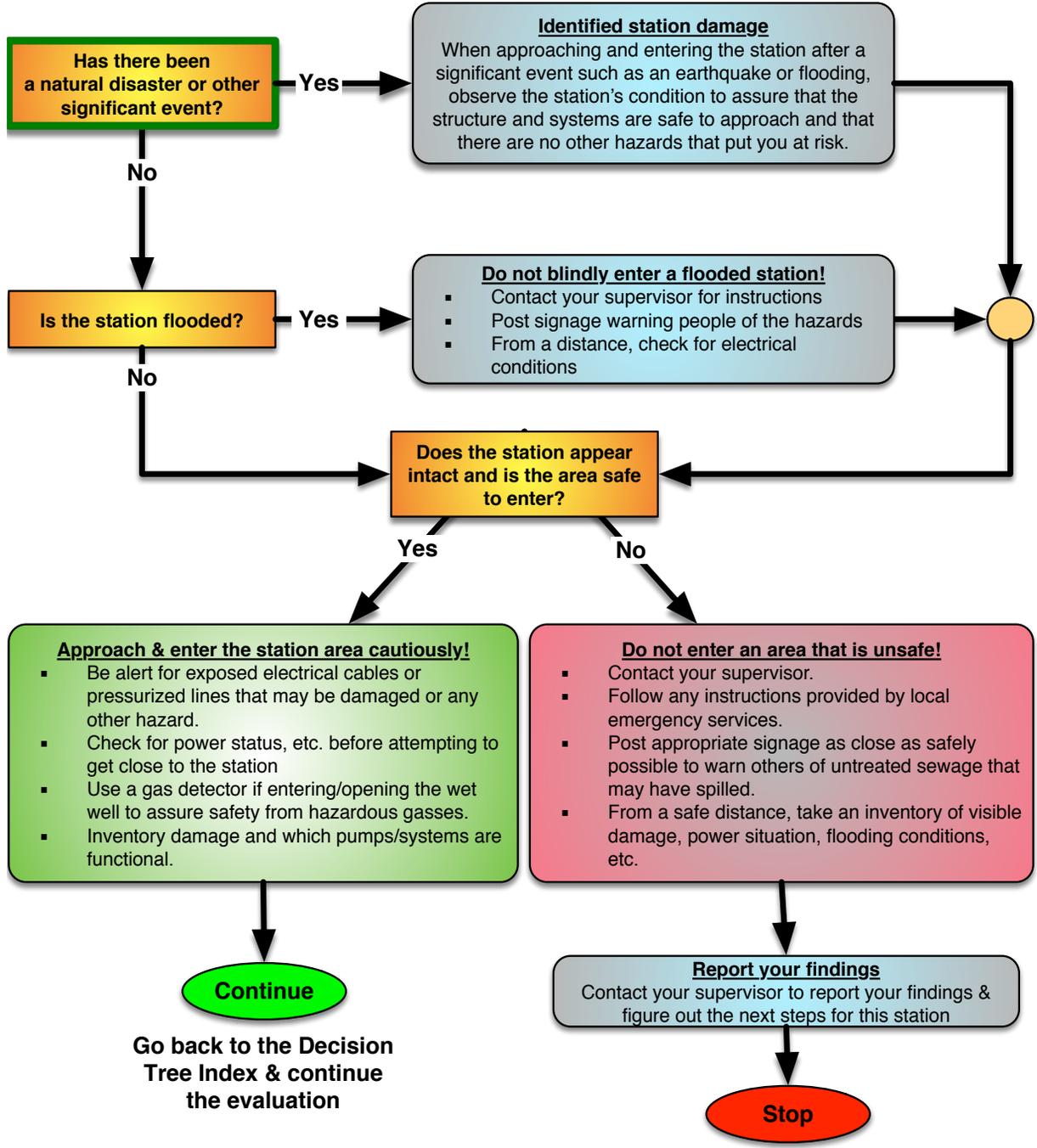
Task/Direction Item



Sequence Merge (Watch arrows for flow direction)

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

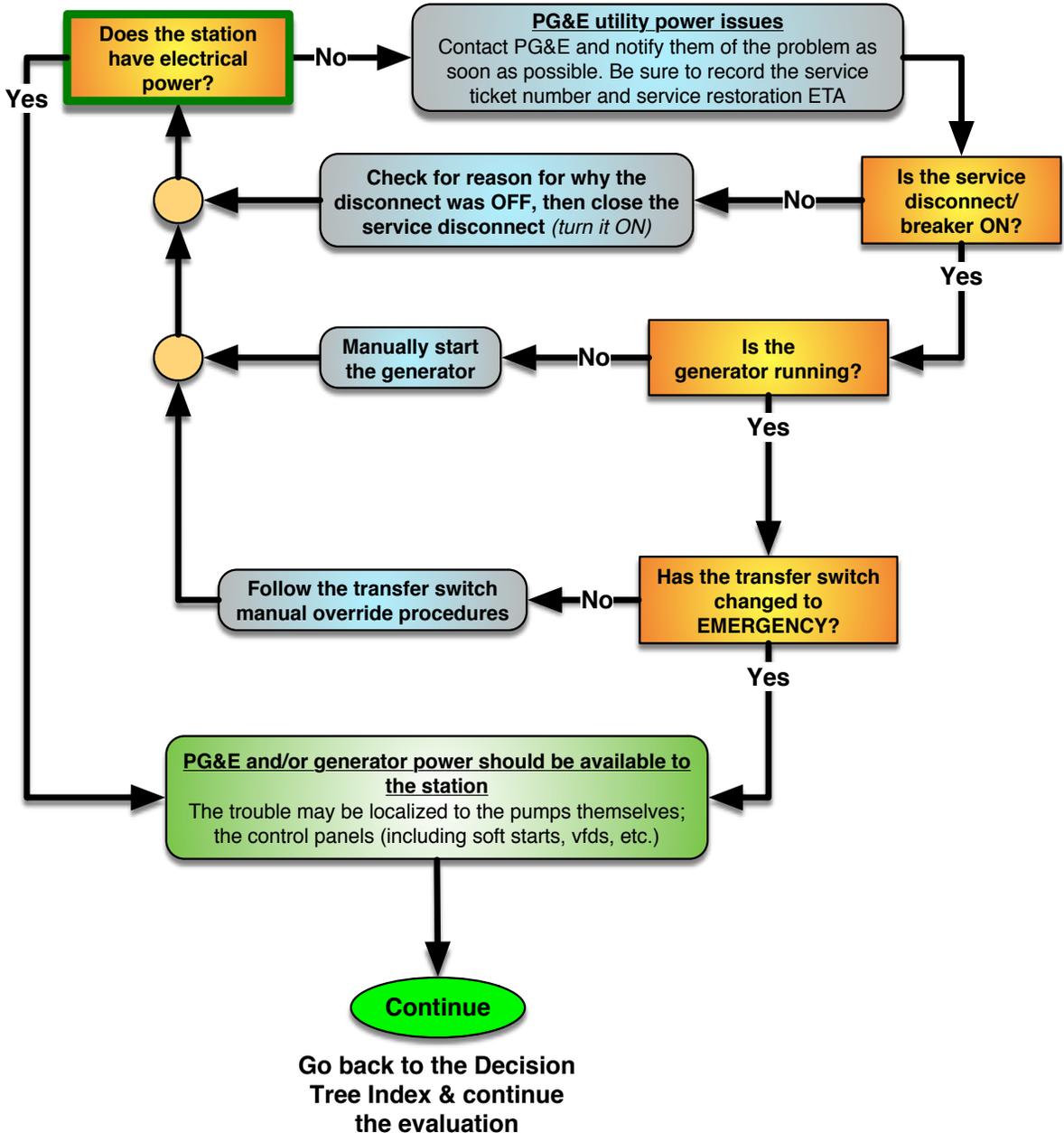


LEGEND

- Initial Question
- Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply

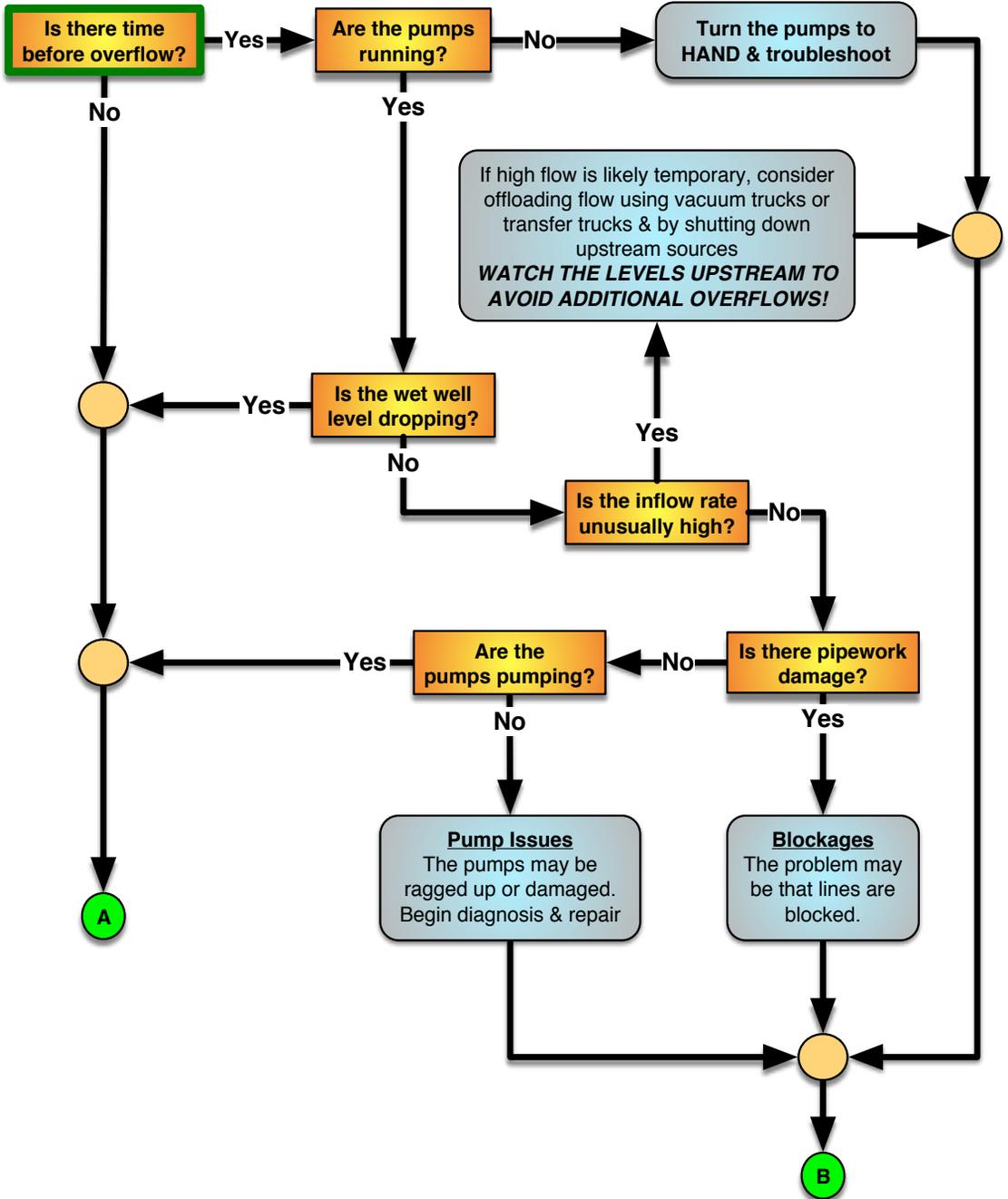


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

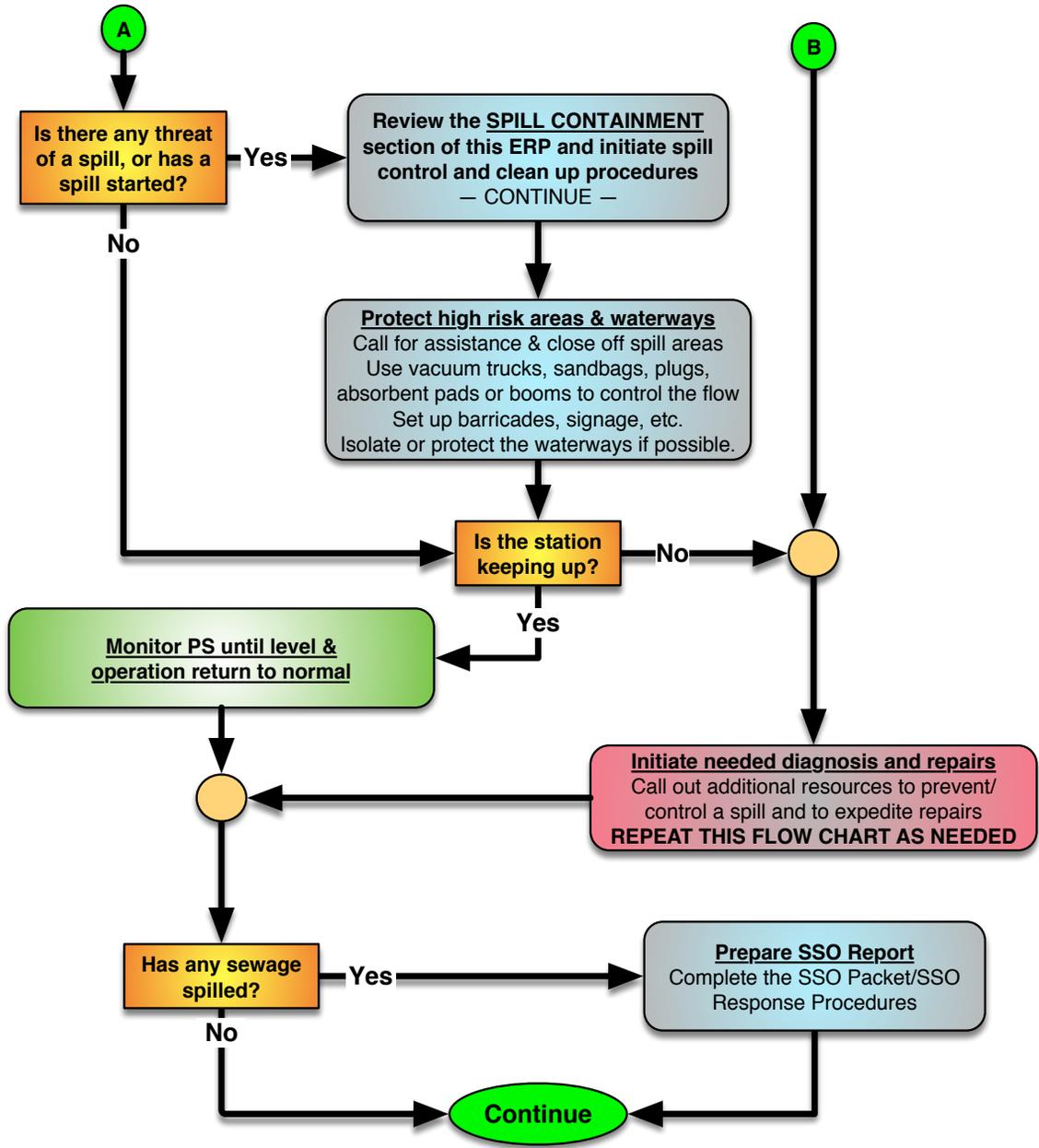
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page Sequence Merge Decision Point Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - Continued



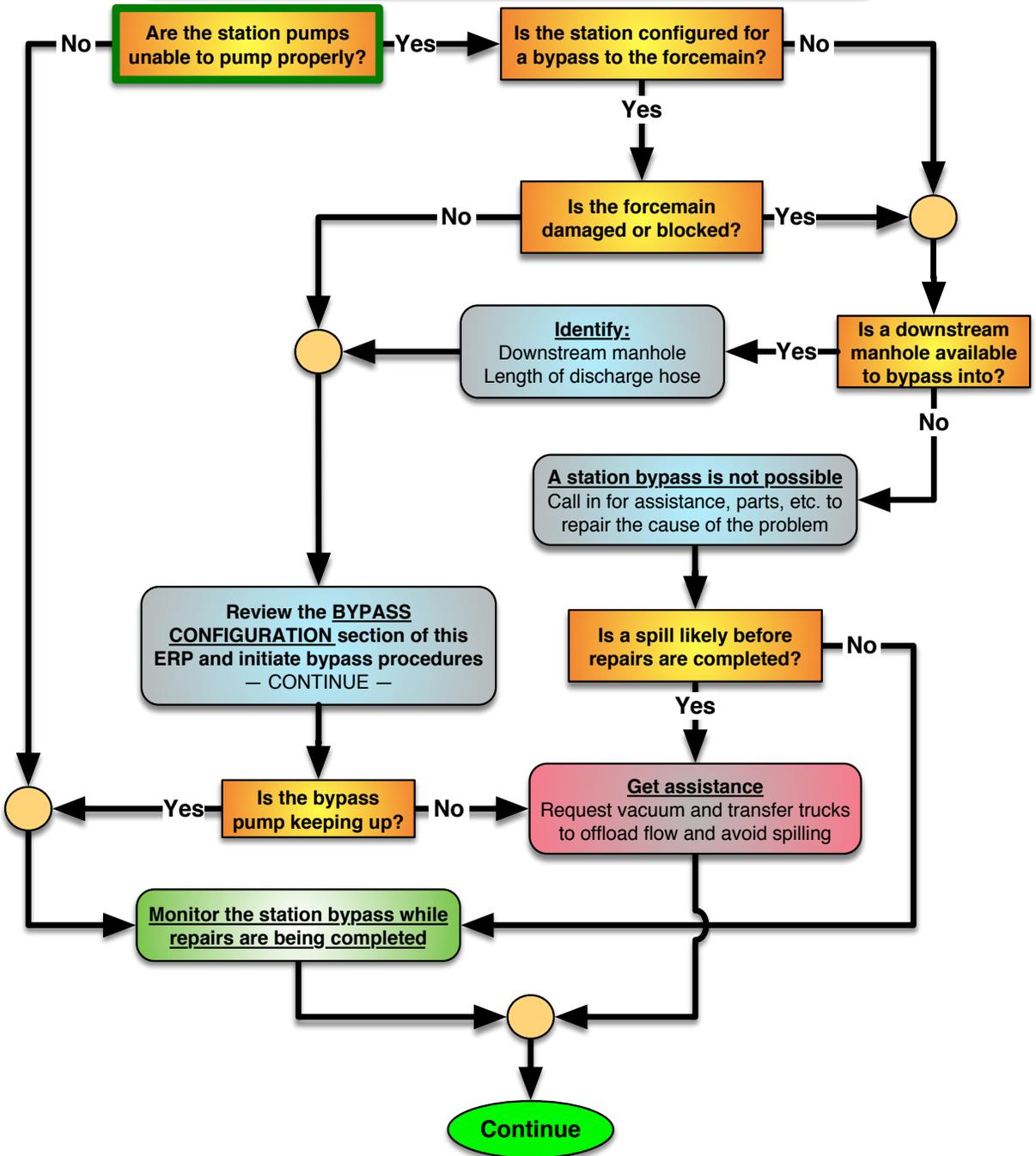
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



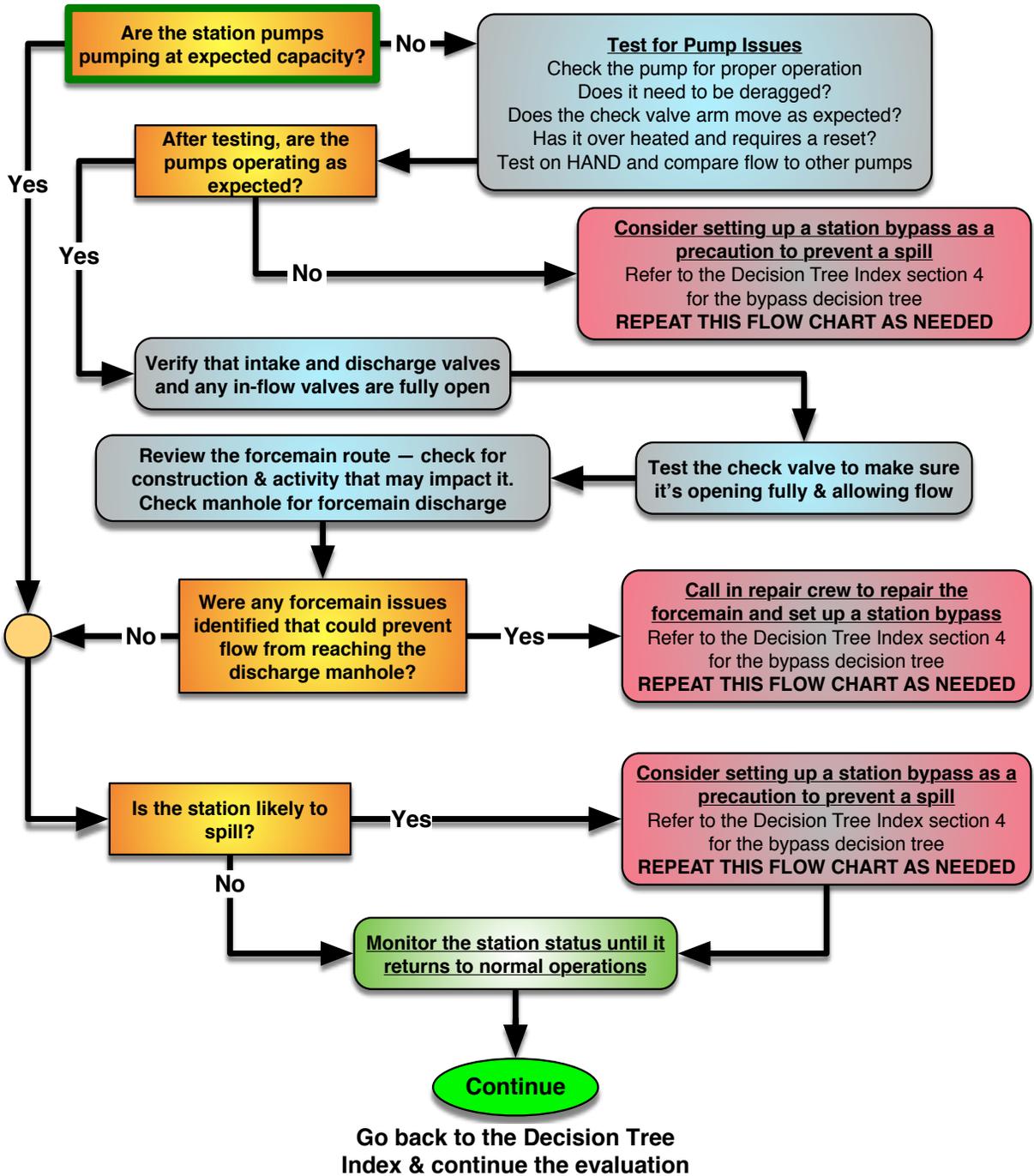
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5 Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Spill Notification Procedures

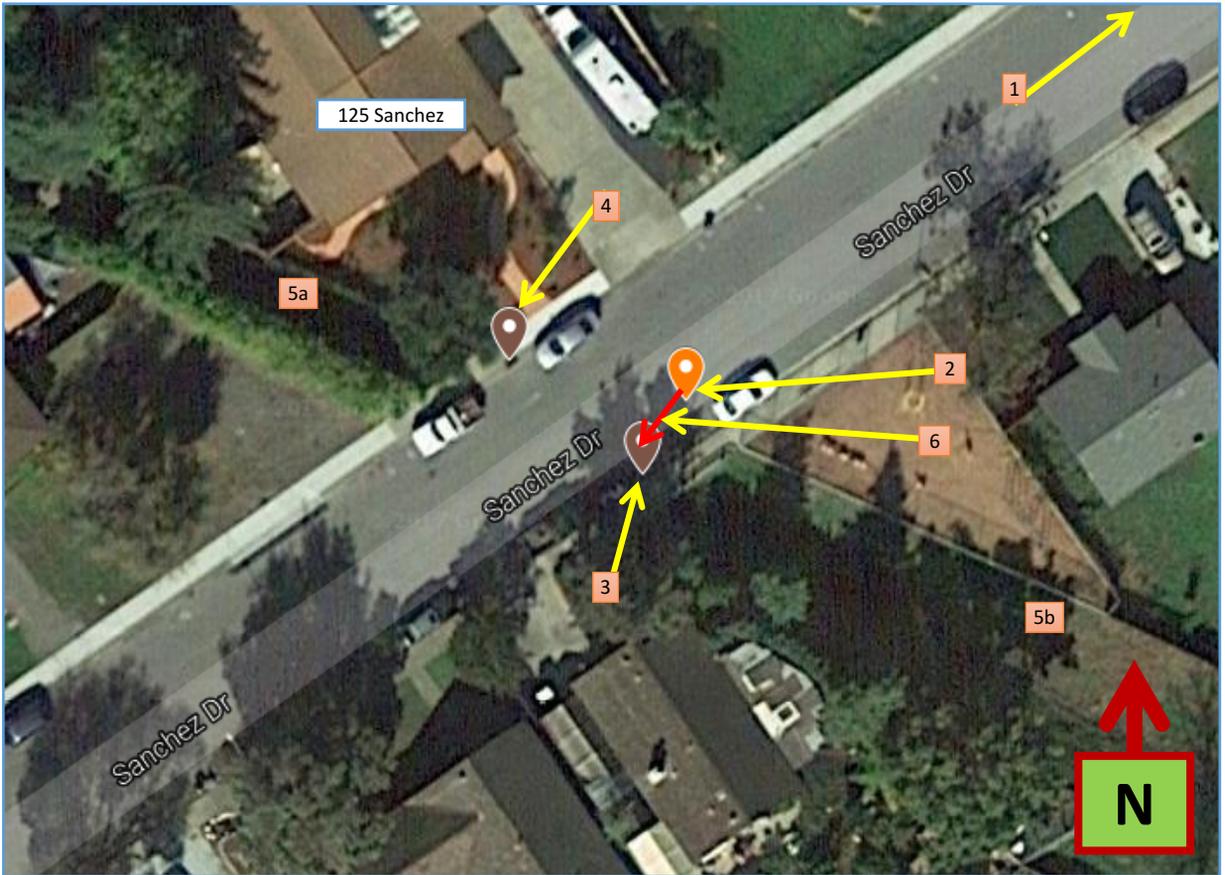
Pump Station G is located in the Jurisdiction of the
San Francisco Bay Regional Water Control Board (#2)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

**See the Contact Information Section for contact information
Page 44**

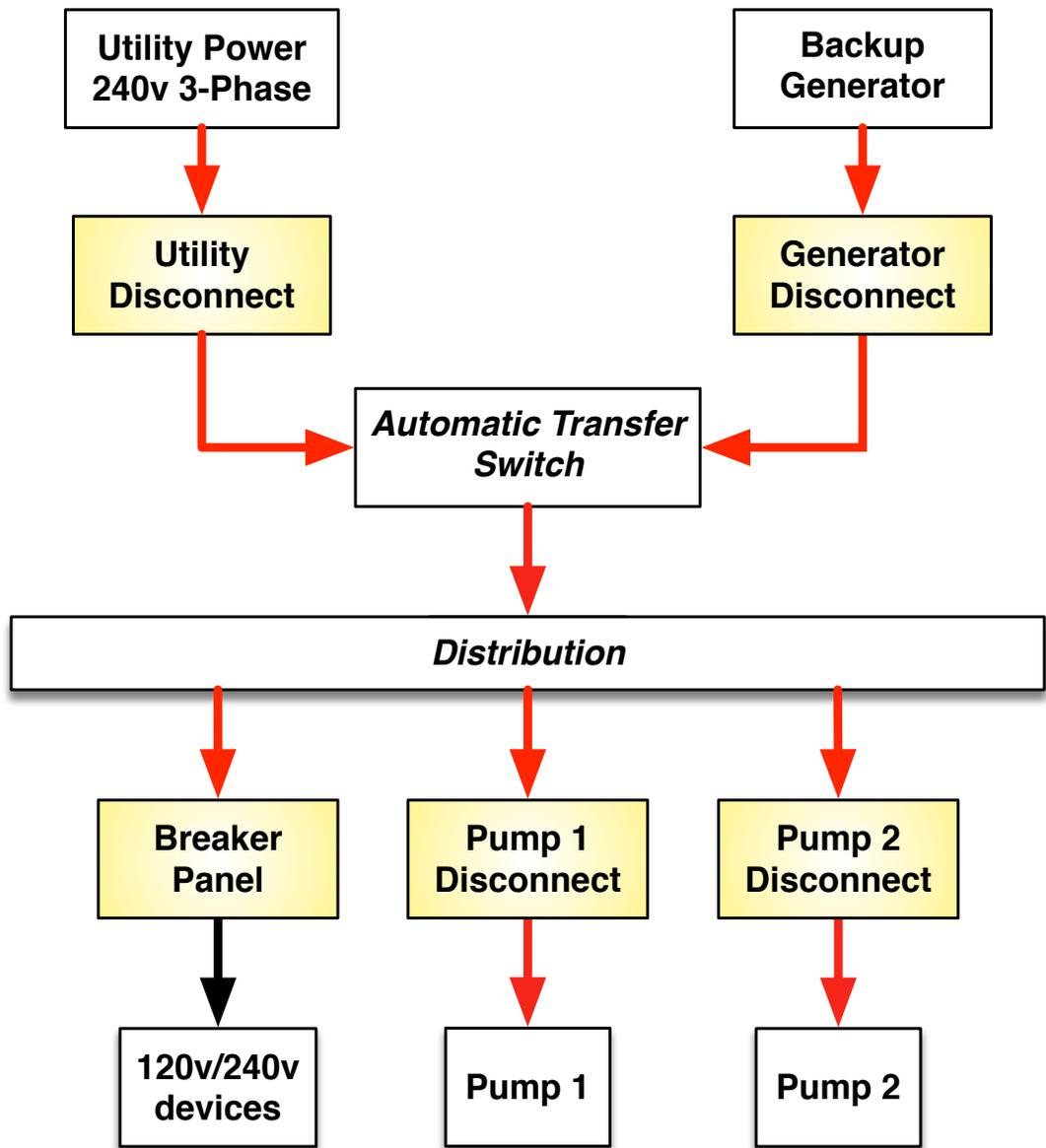
Spill Containment



Potential SSO Impact on State Water

	Type	Position from low point	Containment
1	Pump station	375' NE (<i>across railroad tracks</i>)	System does not spill at pump station. However, in case of a spill, use sandbags or booms to create a holding area and/or a vacuum truck for clean up.
2	Low point manhole	-	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
3	Storm Drain Inlet	~15' SE	
4	Storm Drain Inlet	~20' NW	
5a & 5b	Creek	~15' S	Sandbags or booms to prevent sewage from getting to the creek around the bridge edges or via the storm drains and/or a vacuum truck to collect the spill.
6	<i>Expected flow direction from system low point</i>		

Pump Station Power Map

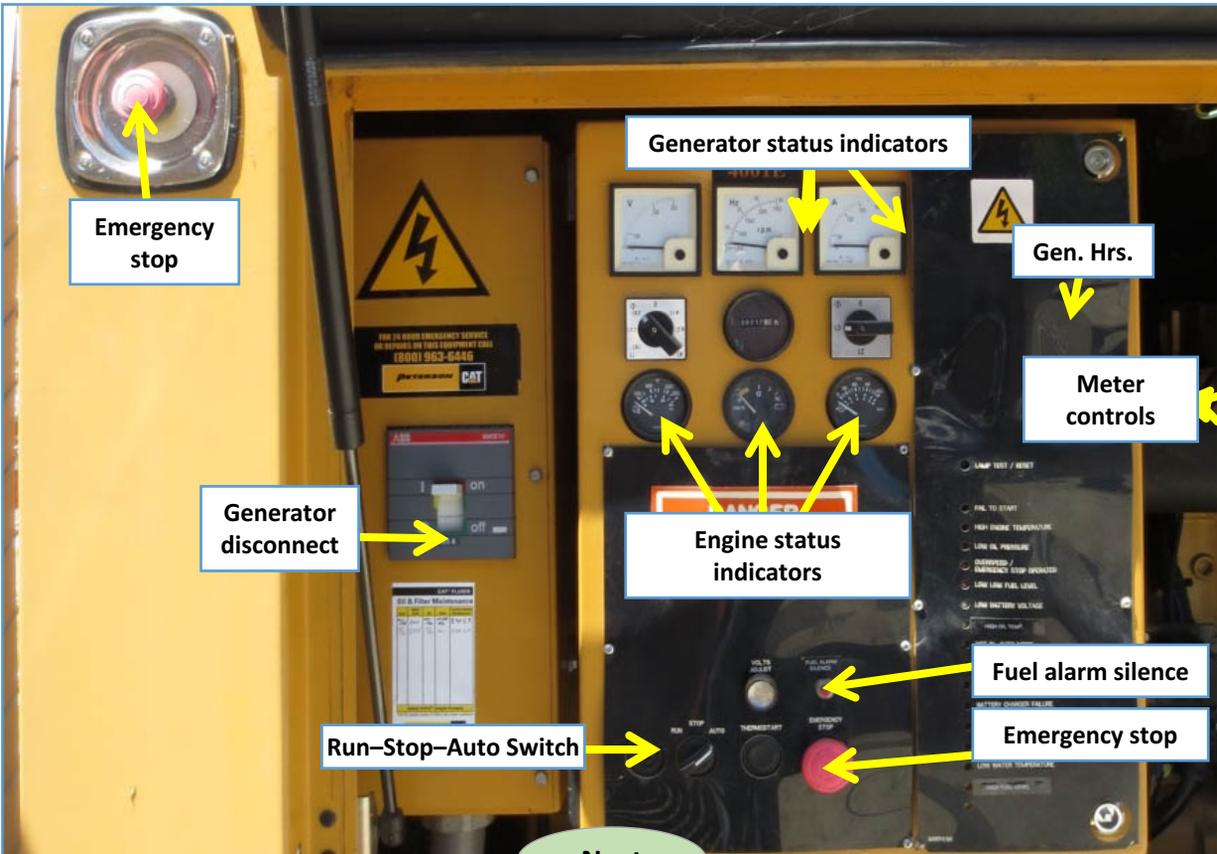
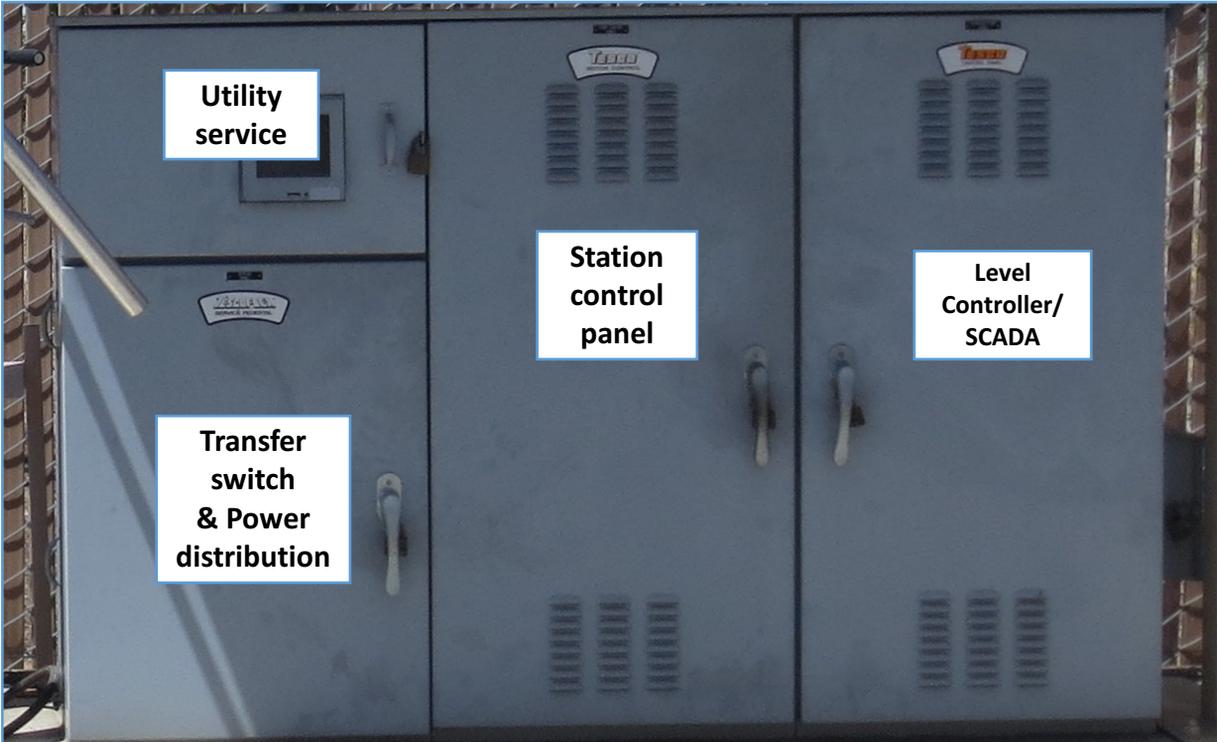


LEGEND

— 240v 3-Phase —→ — 120v/240v 1-Phase —→ LOTO Point

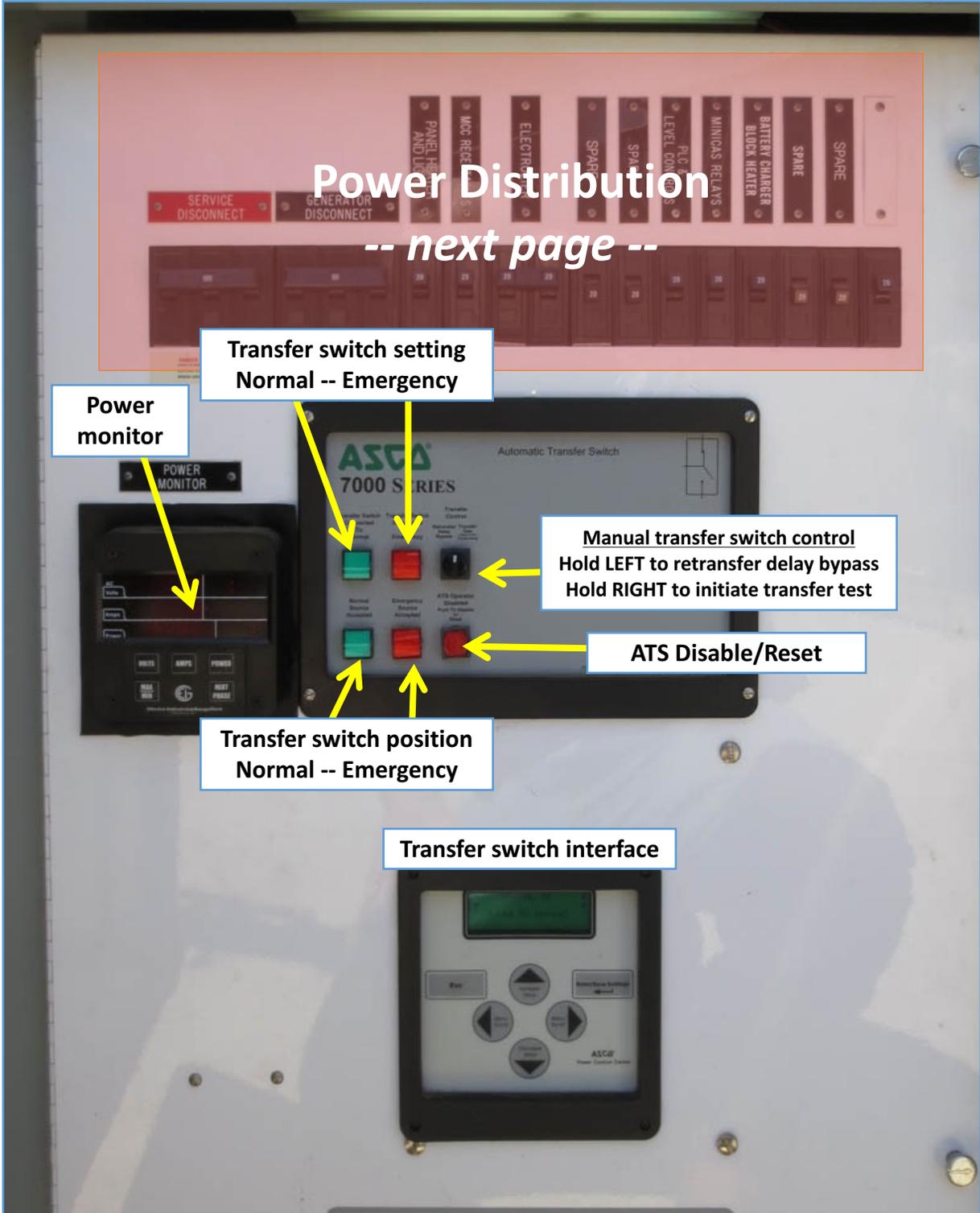
Done

Pump Station Control System



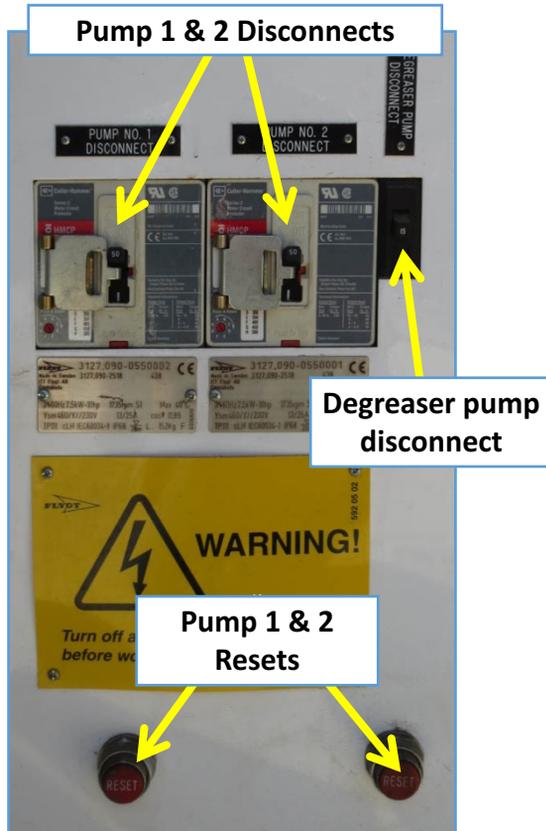
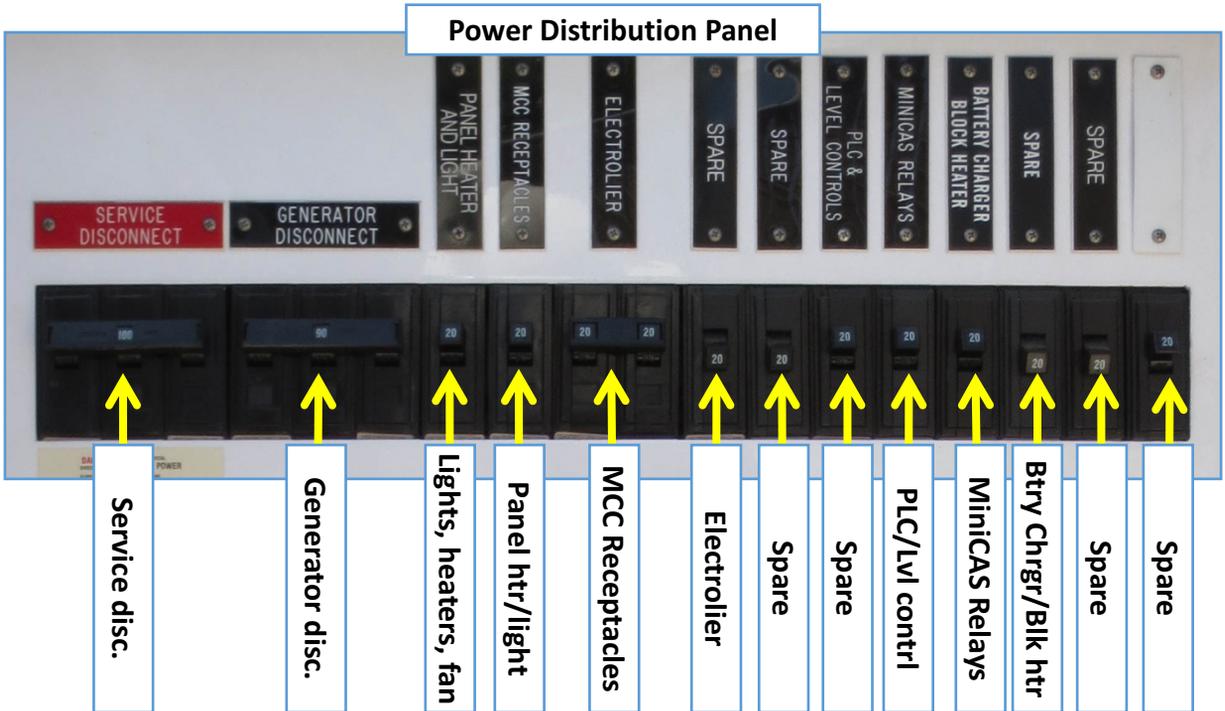
Next

Pump Station Control System



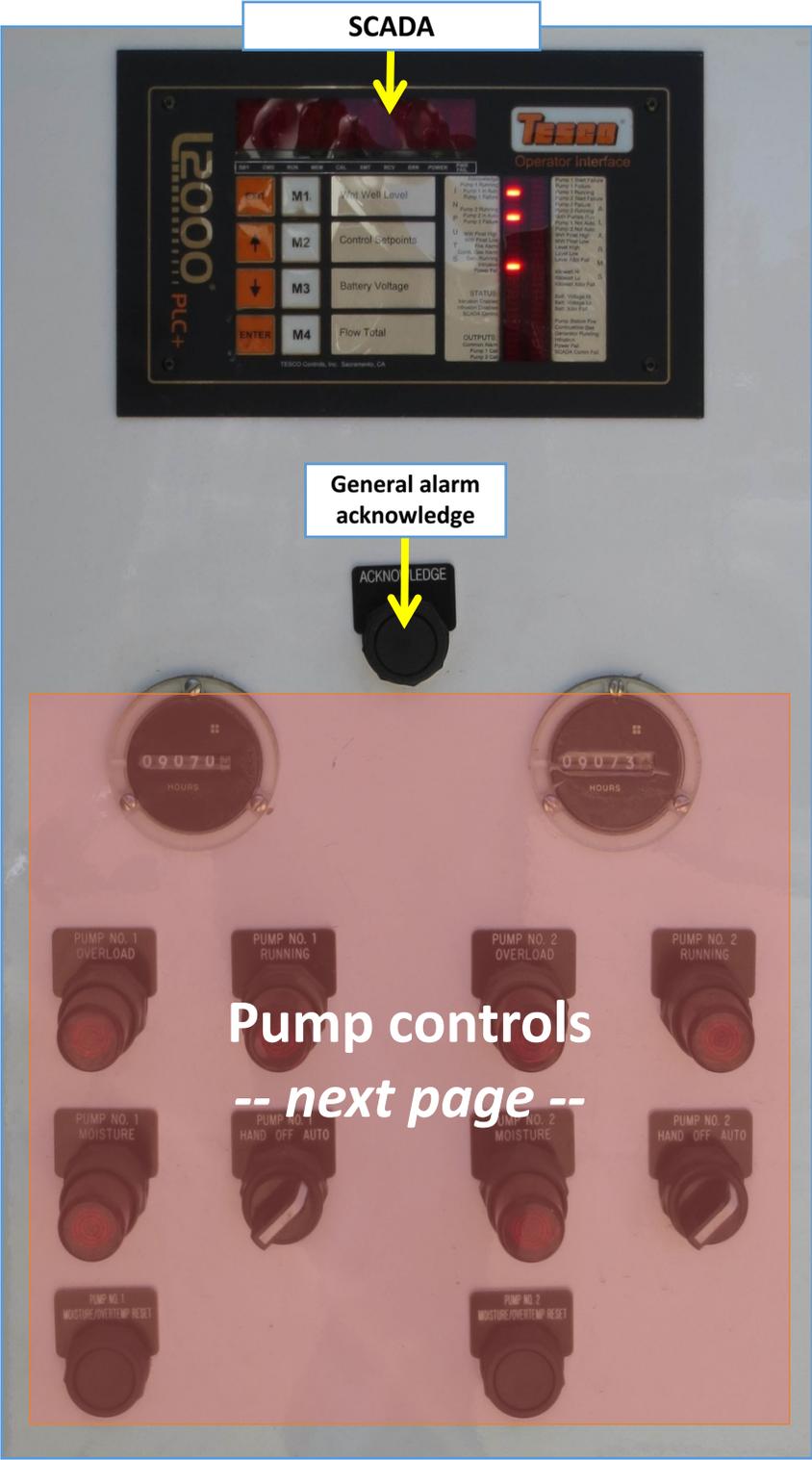
Next

Pump Station Control System



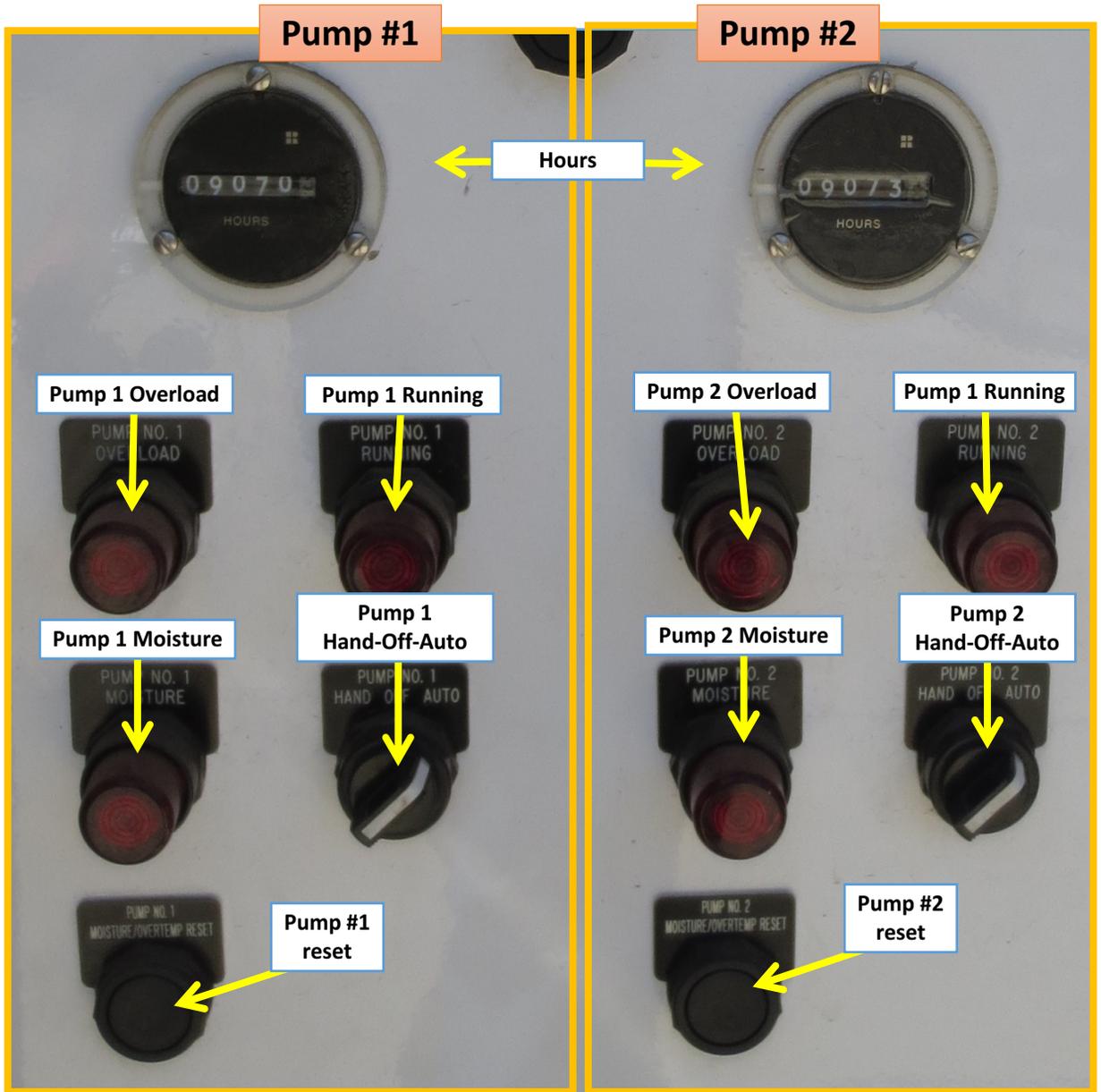
Next

Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and by an automatic backup generator. Care must be taken to disable all energy sources.

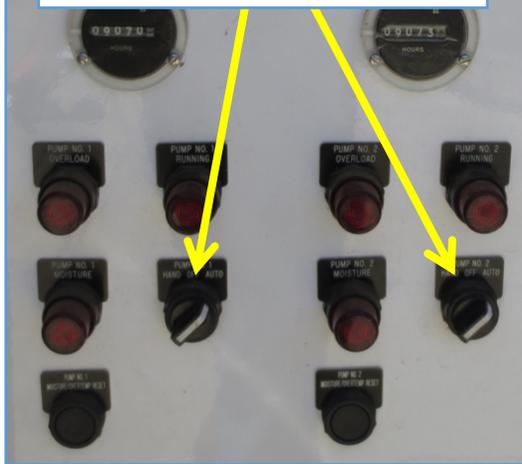
Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

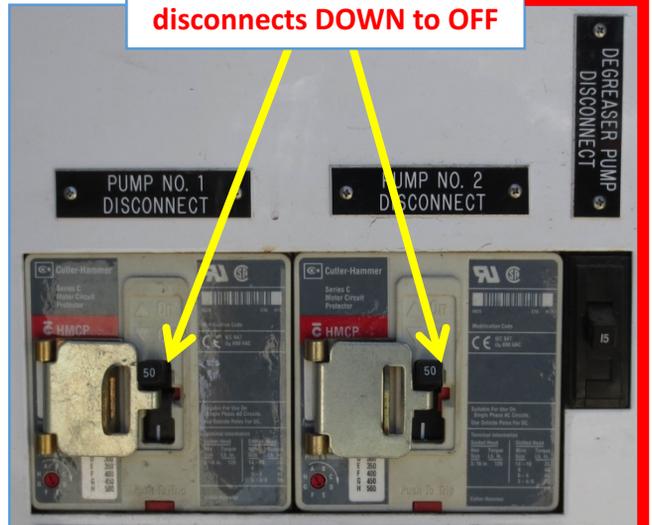
1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down and disable the generator
4. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



Next

Lockout/Tagout Procedures

At the gen. panel, move the RUN-OFF-AUTO switch to OFF (middle), then move the generator disconnect down to OFF



Move the utility service & generator disconnects DOWN to OFF & install LOTO on BOTH devices



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

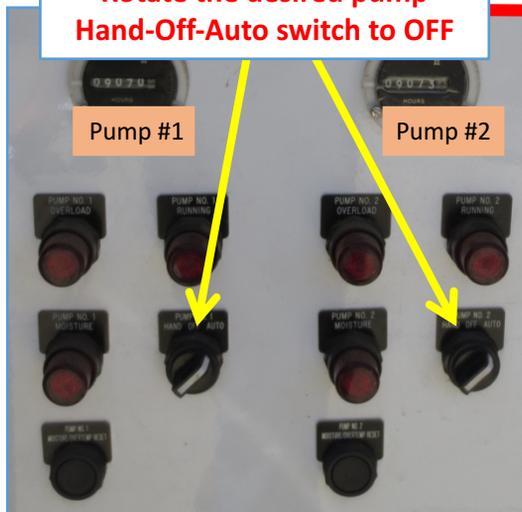
Individual Pumps – Electrical LOTO

On control panel for desired pump

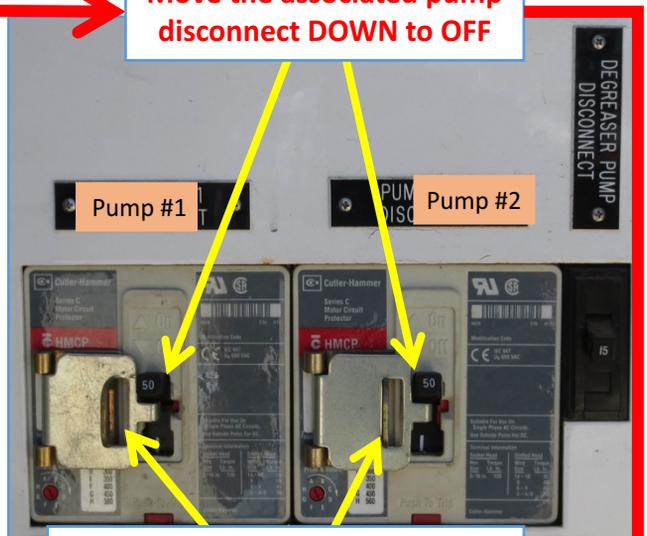
1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel

Rotate the desired pump Hand-Off-Auto switch to OFF



Move the associated pump disconnect DOWN to OFF



Install a LOTO device on the pump disconnect breaker lockout tab



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

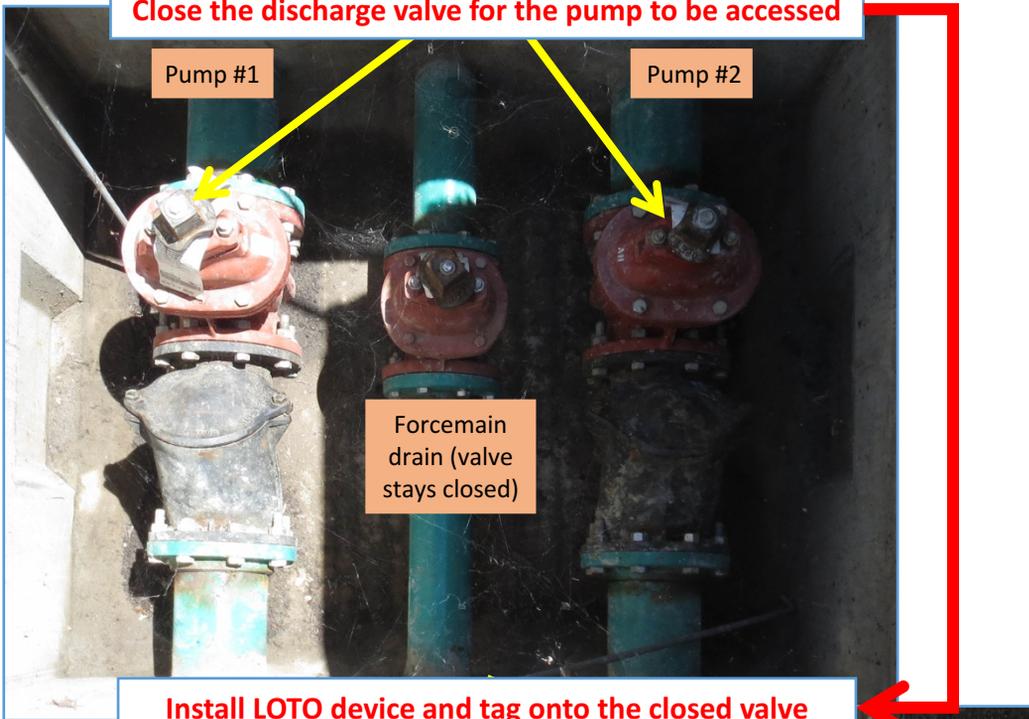
Hydraulic Pressure

Hydraulic LOTO Process

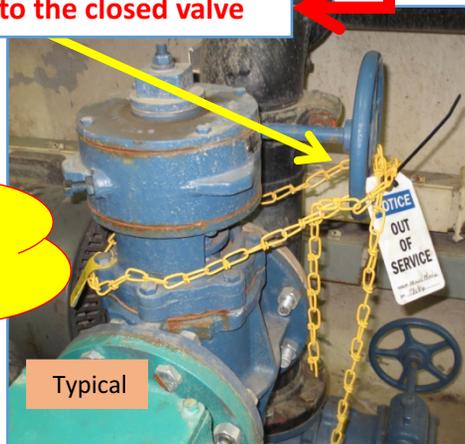
1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

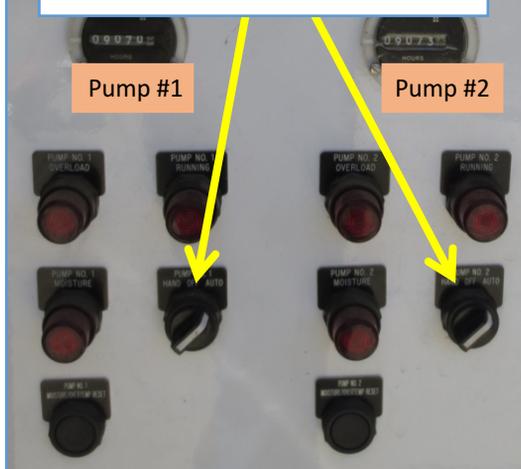
Generator Operation

If utility power is available

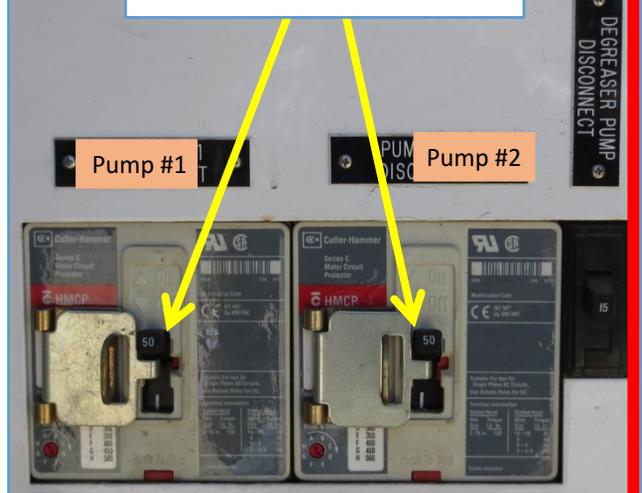
- Reduce the load on the station – Shut pumps off
- Shut the service disconnect off – *If the automatic transfer switch is operating properly, the generator should start and power the station.*
- Make sure that the generator output breaker is ON & the generator switch is in AUTO
- Enable the pumps as desired

Begin

Rotate BOTH pump Hand-Off-Auto switches to OFF



Move BOTH pump disconnects DOWN to OFF



Move the utility service DOWN to OFF

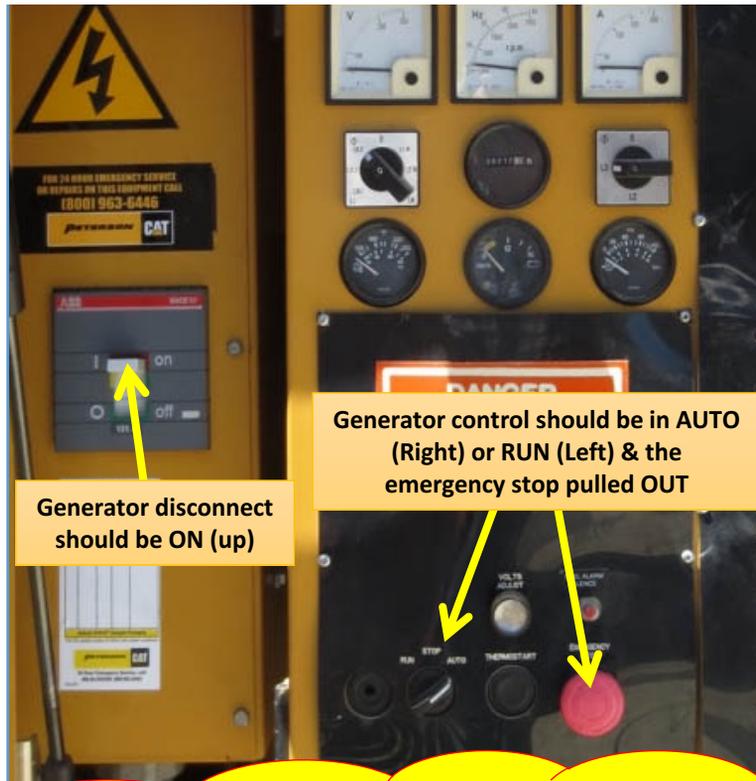


Next

Generator Operation

At this point, the generator should start and transfer over to generator power and be completely independent of utility grid power.

Be sure to verify that the generator is in AUTO or in HAND and that the generator output breaker is ON (up)



If the generator fails to start, or if the transfer switch fails to switch to the EMERGENCY (generator) load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 32 and follow the section: "Transfer Switch – Manual Override"

AS DESIRED: Enable station systems

Done

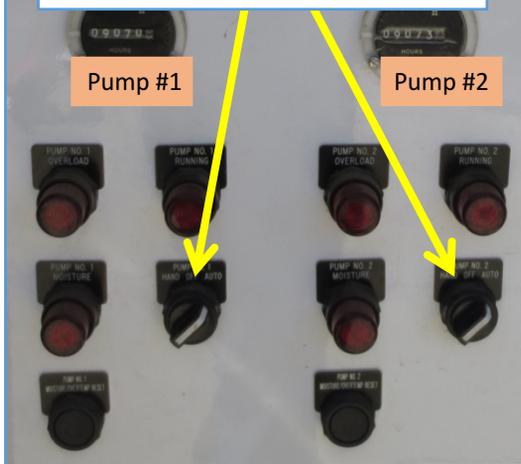
Generator Operation

If utility power is NOT available and/or the generator has not started

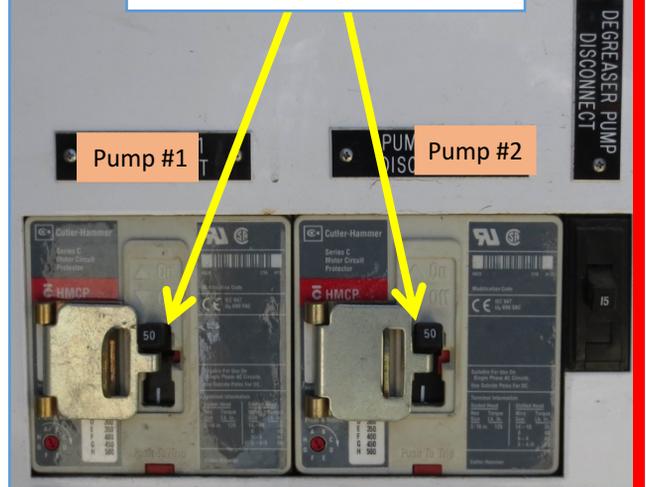
- Reduce the load on the station – Shut pumps off
- Make sure that the generator output breaker is ON & the generator switch is in AUTO
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



**Pull the emergency stop OUT (if needed), then rotate the
RUN-STOP-AUTO switch to AUTO (right)**



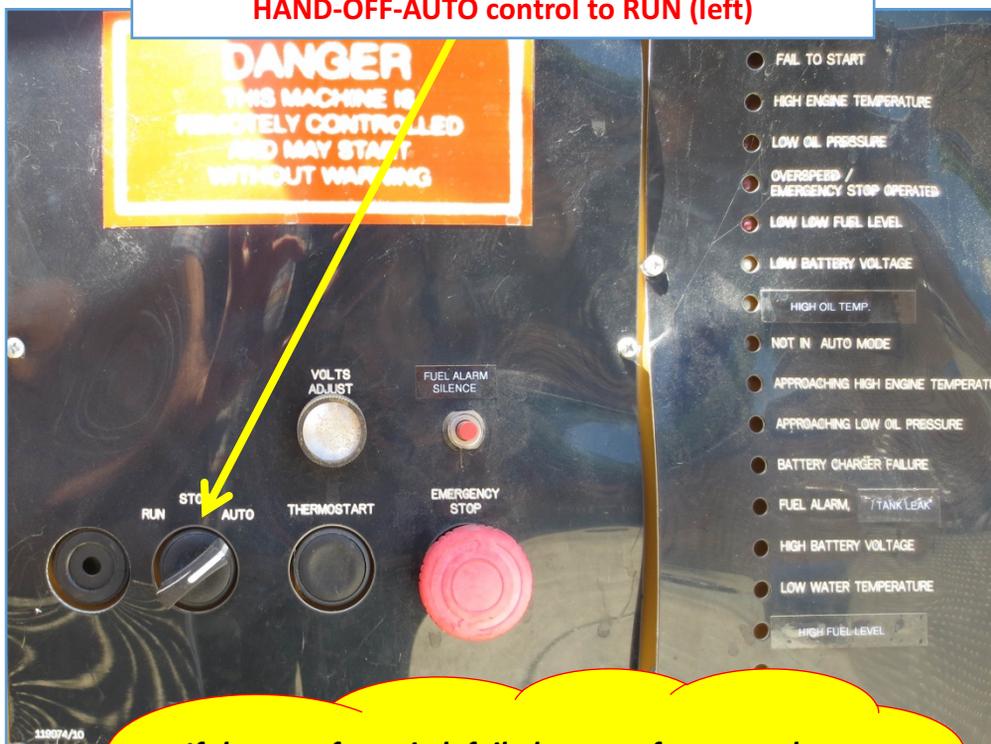
Verify that the generator disconnect is ON (up)

Next

Generator Operation

At this point, the generator should start and transfer over to generator power and be completely independent of utility grid power.

If the generator does not start, move the generator **HAND-OFF-AUTO** control to **RUN** (left)



If the transfer switch failed to transfer, move the **RUN-OFF/RESET-AUTO** switch to **OFF/RESET** and then turn to page 32 and follow the section: **"Transfer Switch – Manual Override"**

AS DESIRED: Enable station systems

Done

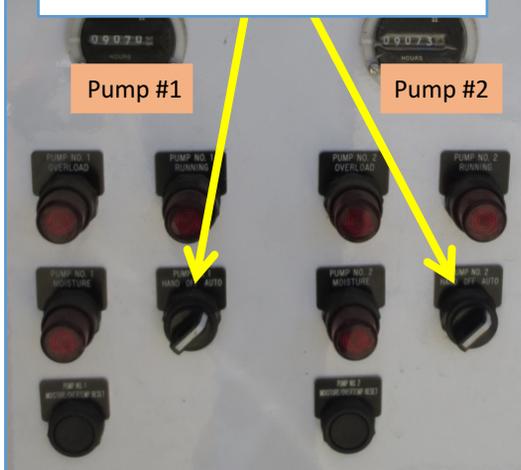
Generator Operation

To return to utility power

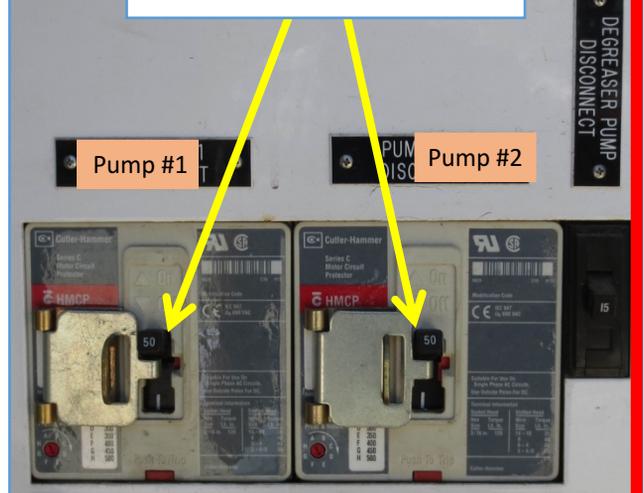
- Reduce the potential load on the station – Shut the pumps off
- Move the main utility service breaker to ON
- *The transfer switch will sense utility power and transfer the station to the utility and then shut the generator down.*
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



Move the utility service UP to ON



Next

Generator Operation

When the transfer switch senses utility power, it will initiate the transfer back to utility. The generator will continue to run until the transfer is complete and the engine cool-down period has elapsed, then it shuts down.

At this point, the station will be running on utility power

If the transfer switch fails to switch back to the UTILITY load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 32 and follow the section: "Transfer Switch – Manual Override"

*AS DESIRED:
Enable station systems*

Done

Generator Operation

THE FOLLOWING PROCEDURE SHOULD ONLY BE PERFORMED BY A QUALIFIED ELECTRICAL WORKER & TRAINED ELECTRICIANS

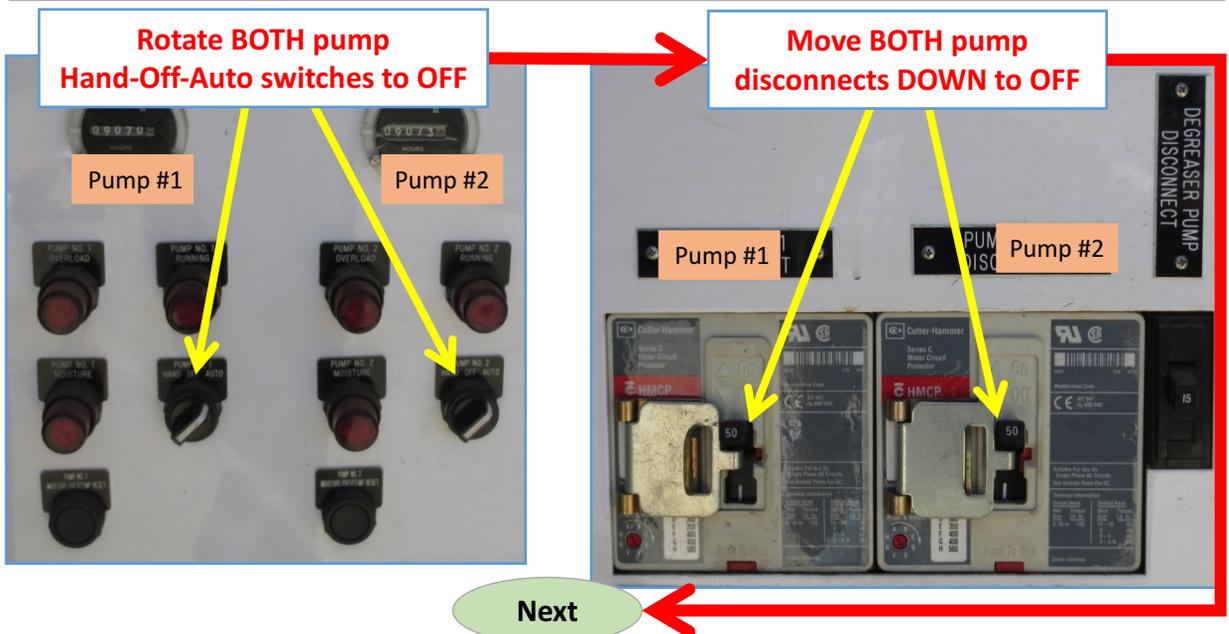
Transfer Switch – Manual Override

Use extreme caution when working in the transfer switch. Make sure to use all the proper lockout procedures before opening the switch cabinet

Summary: Transfer Switch – Manual Override

1. Reduce the load from the pump station – shut both pumps off
2. Shut down and disable the generator
3. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
4. Open the transfer switch cabinet & perform a voltage check
5. Manually change the contacts to the desired mode (EMERGENCY or NORMAL)
6. Close the transfer switch cabinet
7. **If transferring to emergency generator power**
 1. Close the generator disconnect (UP to ON)
 2. Move the generator control to RUN
 3. Leave the utility disconnect OPEN (OFF) to avoid the transfer switch from trying to switch back to utility power
 4. Enable station systems
8. **If transferring to utility power**
 1. Move the service utility disconnect UP to ON
 2. Enable station systems

Begin



Generator Operation

At the gen. panel, move the RUN-OFF-AUTO switch to OFF (middle), then move the generator disconnect down to OFF & press the emergency stop button IN



Move the utility service & generator disconnects DOWN to OFF & install LOTO on BOTH devices

At this point, all electrical power sources have been locked out and work inside the transfer switch can be done



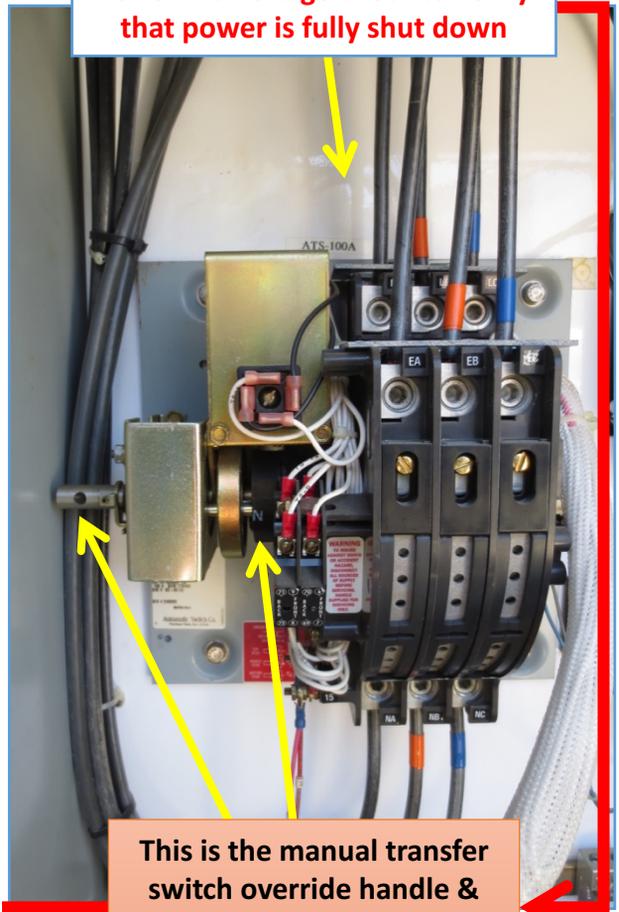
Next

Generator Operation

Open the transfer switch cabinet



Perform a voltage check to verify that power is fully shut down



This is the manual transfer switch override handle & status indicator
Close up on next page

Next

Generator Operation

Rotate the manual switch handle as desired to NORMAL or EMERGENCY MODE
Use a round tool such as a screw driver to engage and rotate the switch

Note the mode indicator. The value visible indicates its current setting:
N = Normal Utility Power
E = Emergency Generator

WARNING!

Always remove the tool from the switch after making the change

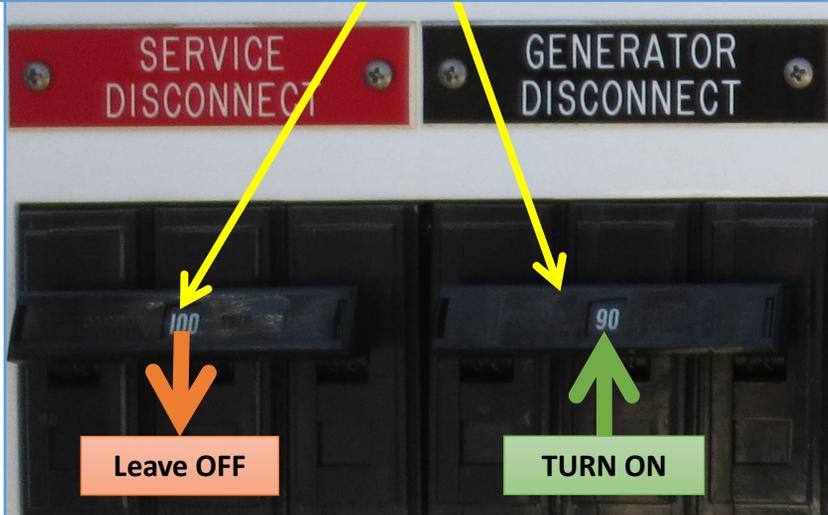
Close and secure the transfer switch cabinet door

Next

Generator Operation

If transferring TO emergency generator power

Move the generator disconnect UP to ON
Leave the utility disconnect OFF to avoid the switch from trying to switch to utility



At the generator panel, move the disconnect to UP to ON; Pull the emergency stop button OUT; then move the RUN- OFF/Reset-AUTO switch to RUN (left)
The generator should start up at this point



At this point, the station should be running on generator power and completely independent of utility power

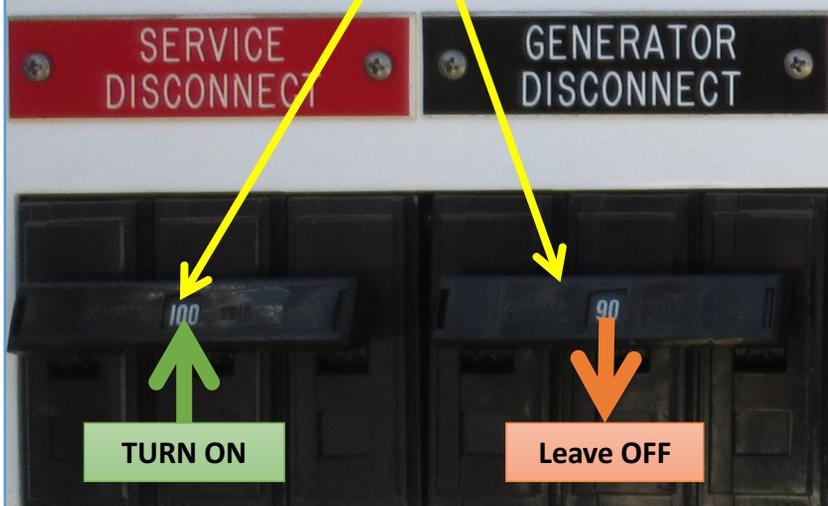
AS DESIRED:
Enable station systems

Done

Generator Operation

If transferring TO utility power

Move the utility disconnect UP to ON.
The generator disconnect may be turned on or left off as desired



At the generator panel, move the RUN- OFF/Reset-AUTO switch to OFF (middle)
This prevents the generator from starting



At this point, the station should be running on UTILITY power

*AS DESIRED:
Enable station systems*

Done

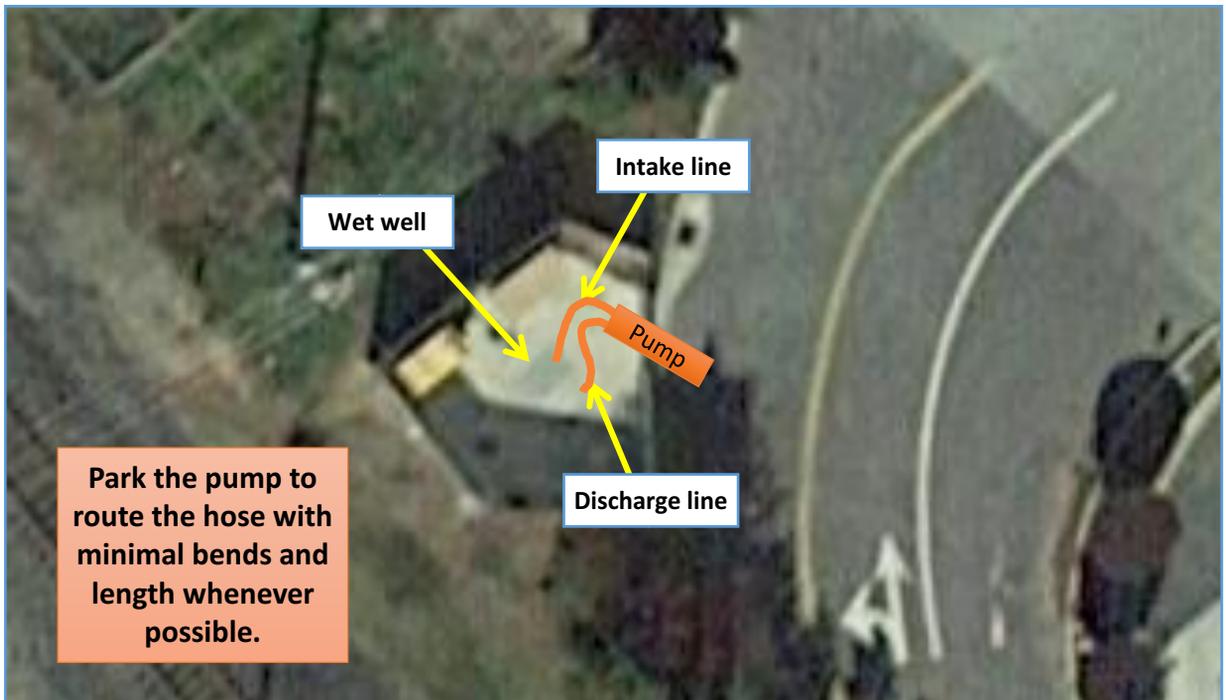
Bypass to Force Main

Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the valves needed to return to normal operations

Begin Procedure



Park the pump to route the hose with minimal bends and length whenever possible.

Next

Bypass to Force Main

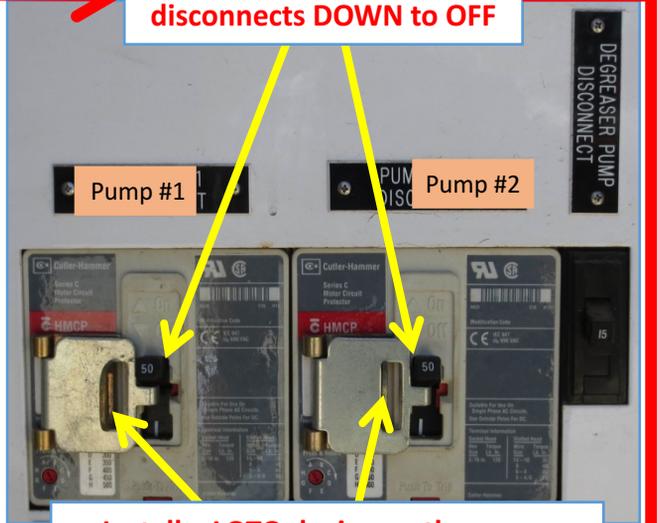
Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

Rotate BOTH pump Hand-Off-Auto switches to OFF



**Pump #1 shown
Pump #2 is identical**

Move BOTH pump disconnects DOWN to OFF



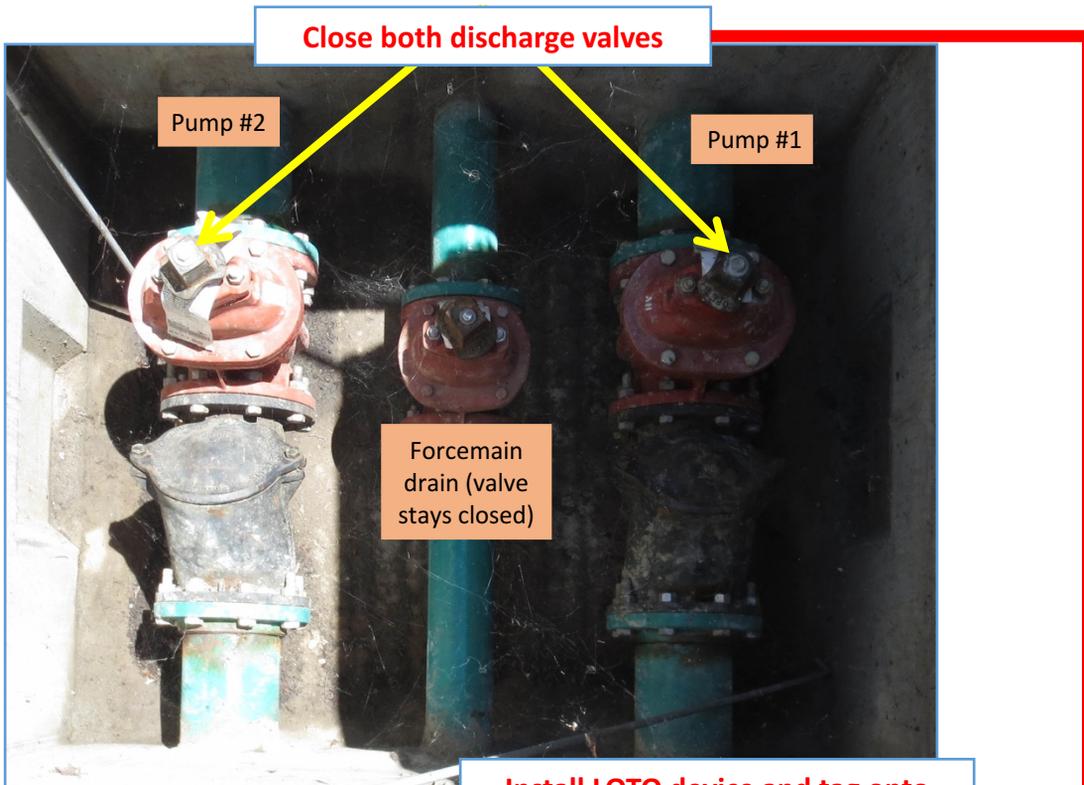
Install a LOTO device on the pump disconnect breaker for the pump that will have it's check valve worked on



Typical

Next

Bypass to Force Main



Install LOTO device and tag onto the check valve for the pump that will have it's check valve worked on

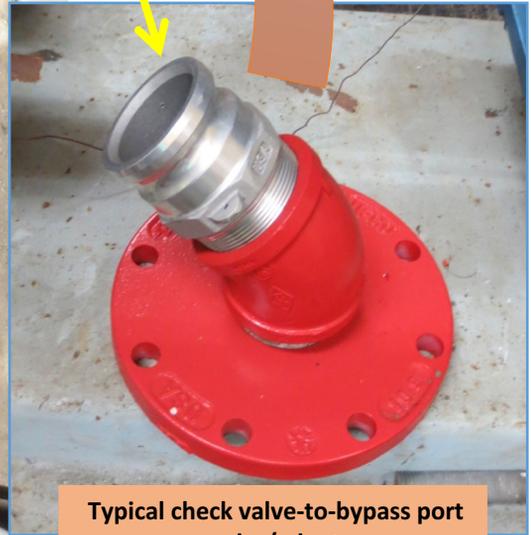
Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!



Next

Bypass to Force Main

Install a flange/coupler onto the bypass valve

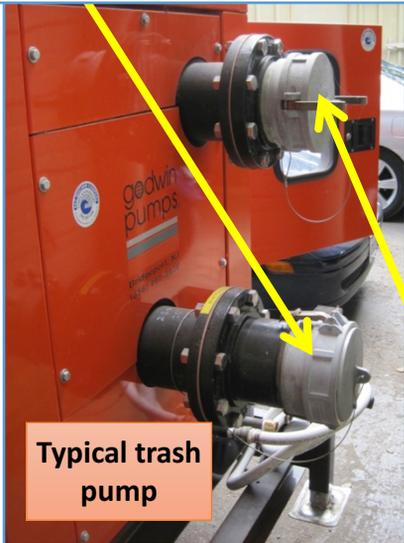


Typical check valve-to-bypass port coupler/adapter

Next

Bypass to Force Main

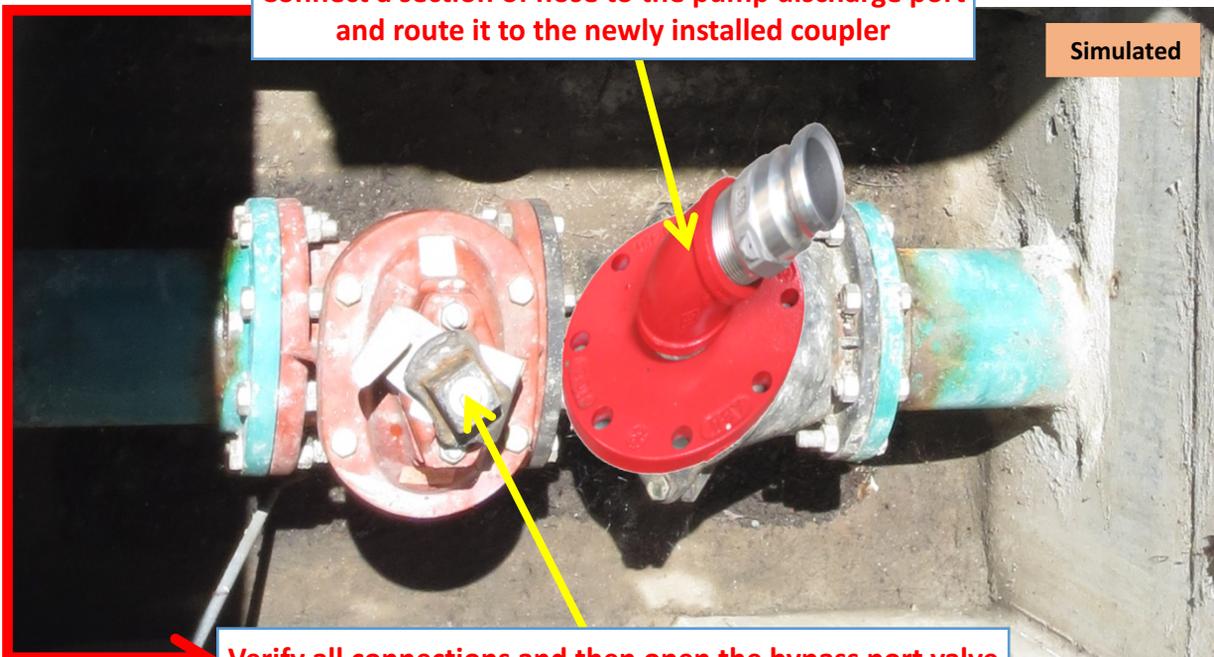
Connect a suction hose with strainer-end to the intake port



Lower the suction hose into the wet well



Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

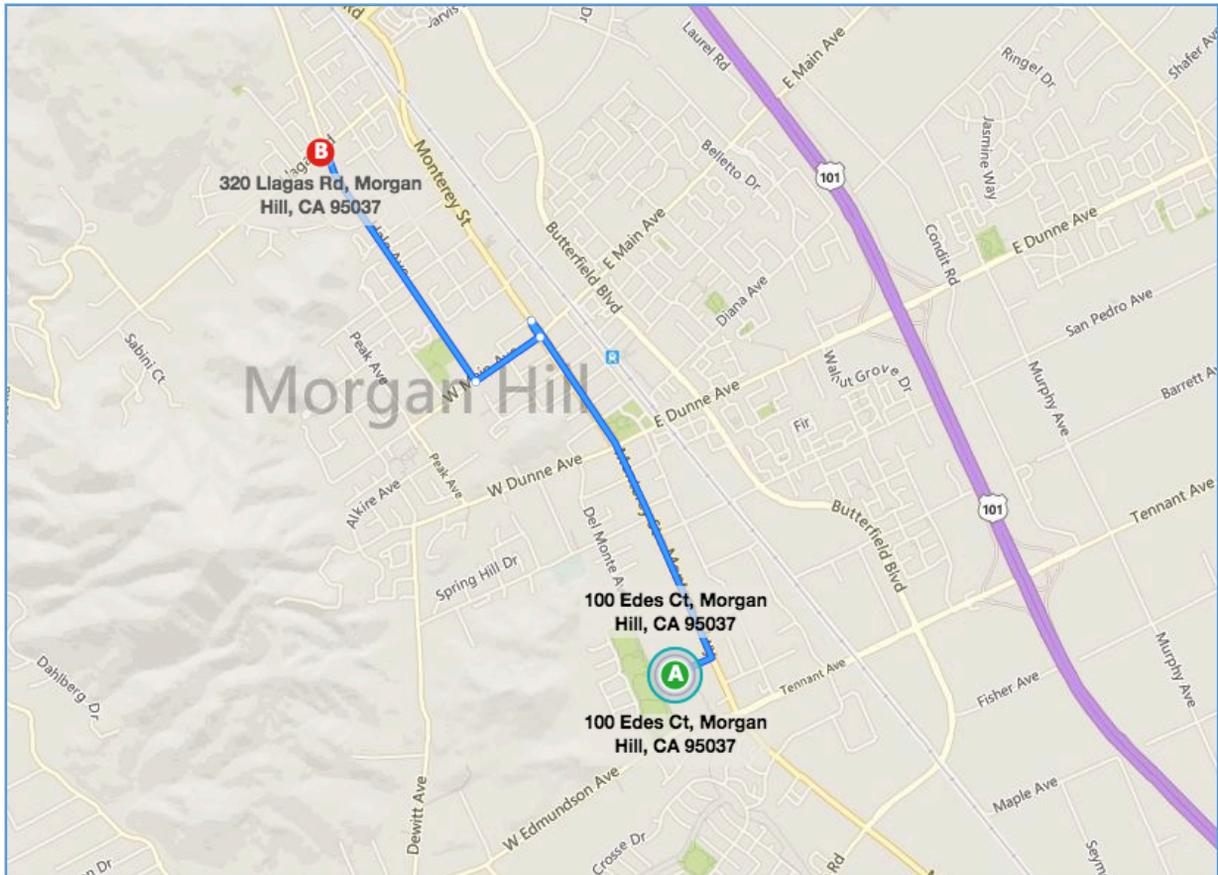


Pump Station PS-H
320 Llagas Road

Table of Contents	
Pump Station Technical Information	3
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Pump Station Technical Information

Name	PS-H – 320 Llagas Road Pump Station
Address	320 Llagas Road, Morgan Hill, CA 95037
Lat., Long.	37.138569, -121.667234
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Make a U-turn at Keystone Rd Turn Right onto W Main Ave Turn Right onto Hale Ave Turn Left onto Llagas Rd. The pump station is on the SW corner of Llagas Rd. & Hale Ave



Pump Station Technical Information

Station Information	
Wet well dimensions & capacity	Tank 1: 5' diameter x 18' deep; 2,644 gallons Total Capacity: 2,644 gallons
Est. hold time (dry weather)	4 hours
Low point (likely overflow point)	Two manholes near the pump station Approx. GPS: 37.138643, -121.667173 Approx. GPS: 37.138681, -121.667372
Upstream pump station(s)	Gravity only
Downstream pump station	WWTP
Forcemain Data	6" x 40'
Discharge location	37.138373, -121.667085

Pump Capacities		
Pump	Motor & Pump	Capacity
#1	Flygt 3102/0064, 5hp, 240v 3-phase	120 gpm
#2	Flygt 3102/0064, 5hp, 240v 3-phase	120 gpm

Station Power		
Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038080
	PG&E Meter #	1008835703
	PG&E Outage Block	3
	Priority	Sewer pump station
Backup Generator	The station is not equipped with a permanently installed backup generator, however it is equipped with a manual transfer switch and a quick connect for a portable generator	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port, however the station may be bypassed by installing an adapter onto one of the check valves.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

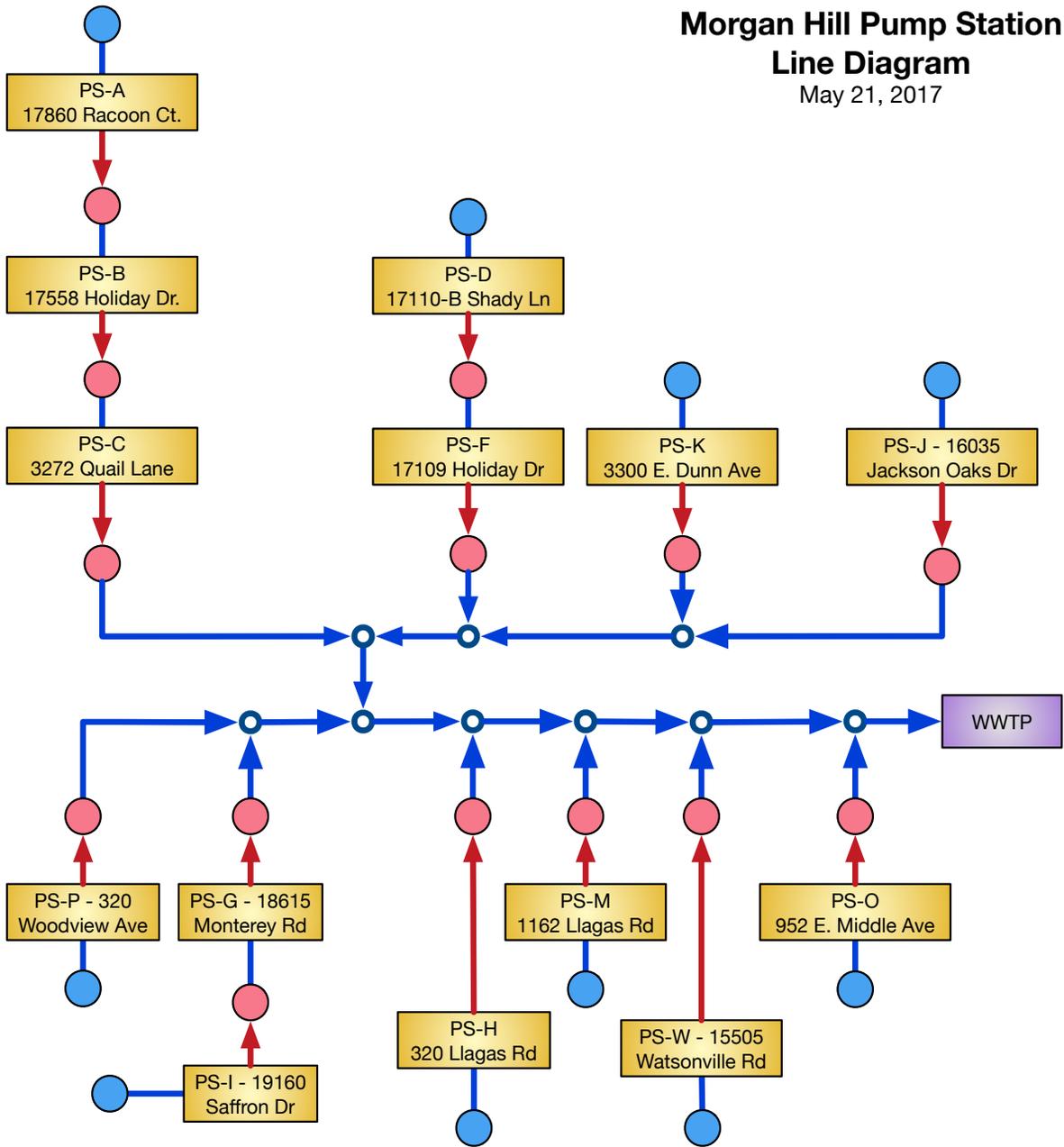
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
Gravity Feed Only	Force main & flow direction
Force Main Discharge	Gravity line & flow direction
Force Main Junction	PS Morgan Hill managed PS
Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide Decision Tree Index

Step	Section	Location
1	Employee Safety/Station Evaluation	8
2	Station Power Supply	9
3	Spill Containment & Control	10
4	Bypass Pumping	12
5	Pumps, Valves & Forcemains	13

LEGEND



Initial Question



Decision Point



Page-To-Page Link



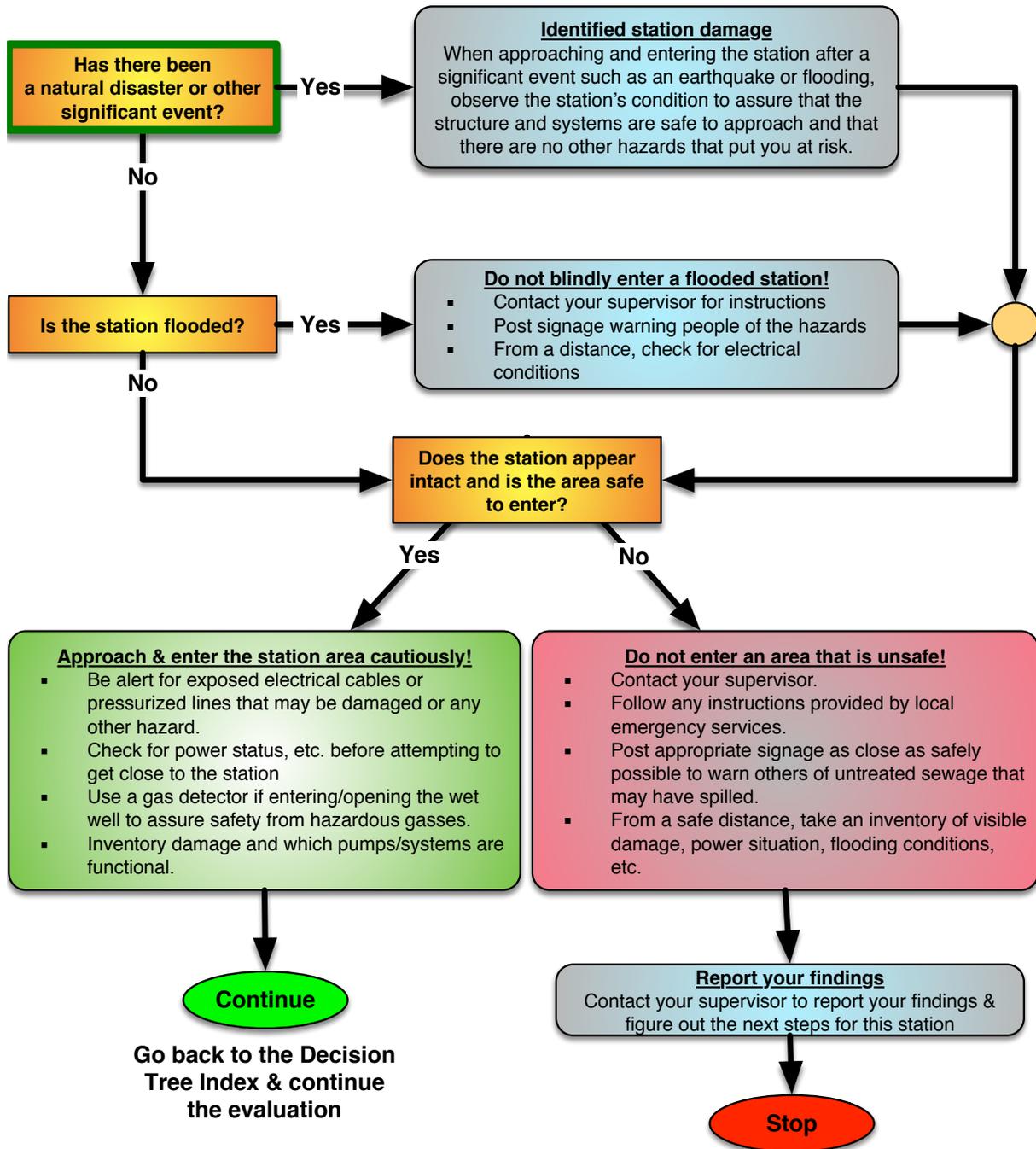
Task/Direction Item



Sequence Merge (Watch arrows for flow direction)

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

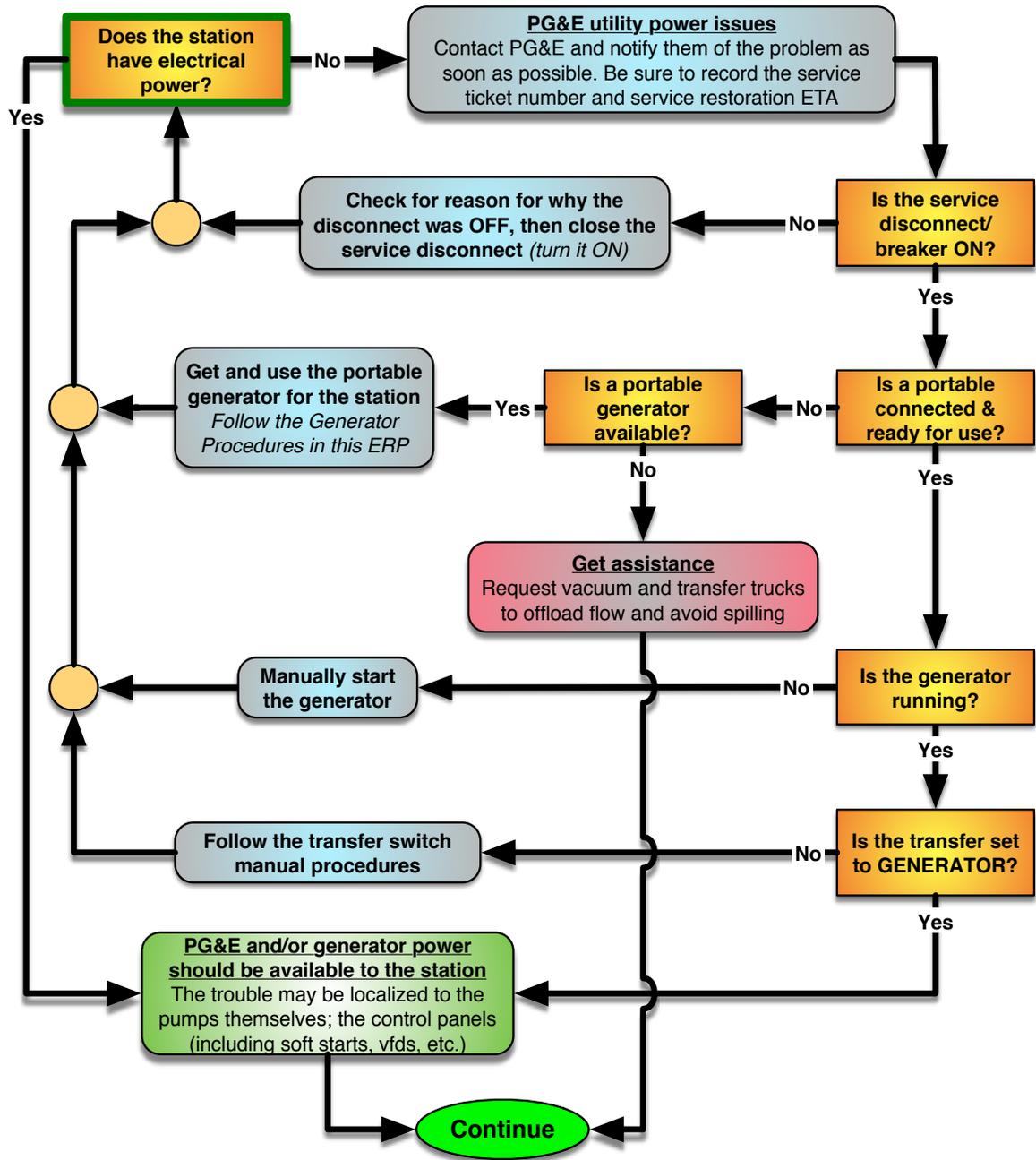


LEGEND

- Initial Question
- Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply



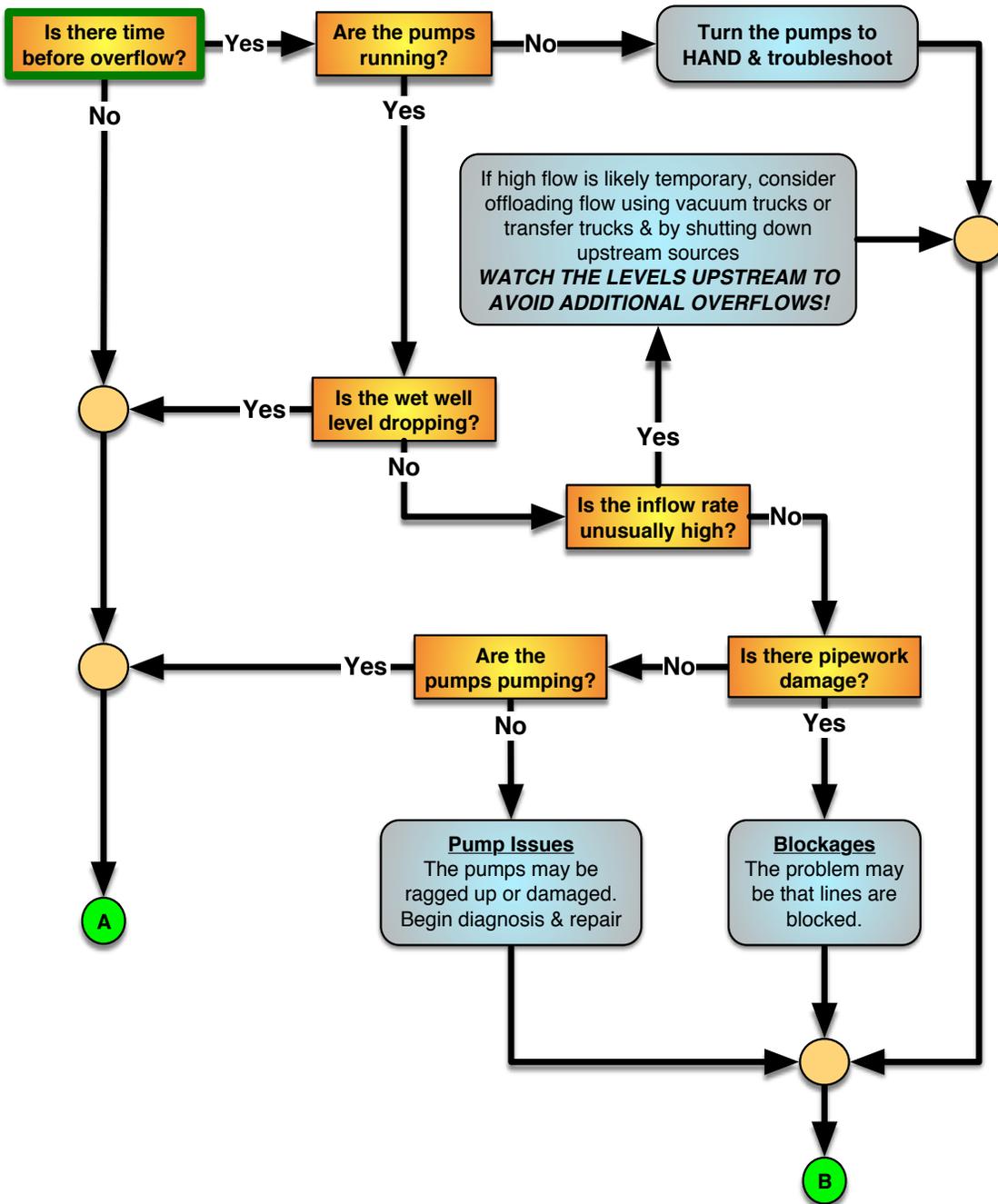
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

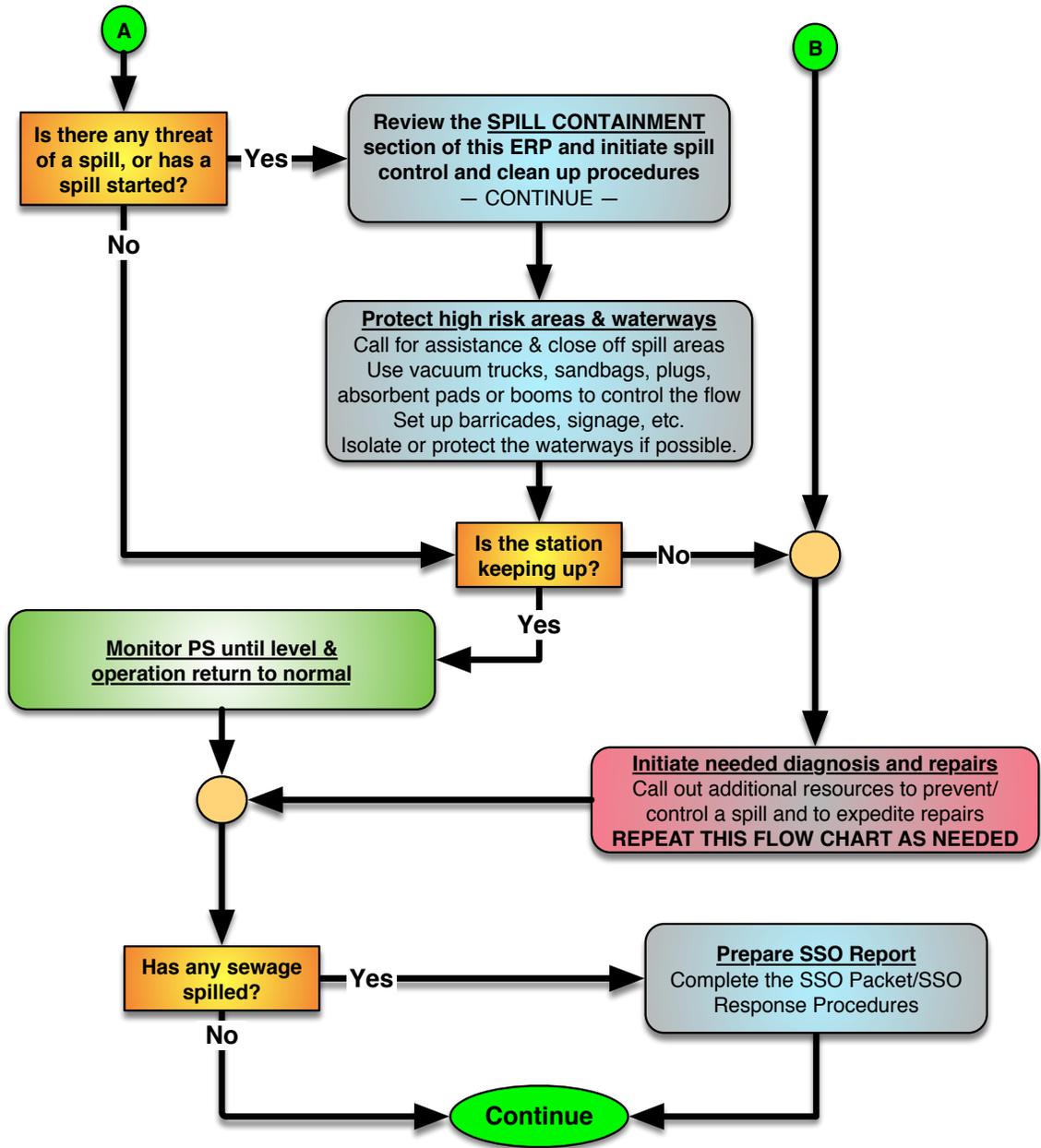
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ● Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - *Continued*



Go back to the Decision Tree Index & continue the evaluation

LEGEND



Initial Question



Page-To-Page



Sequence Merge



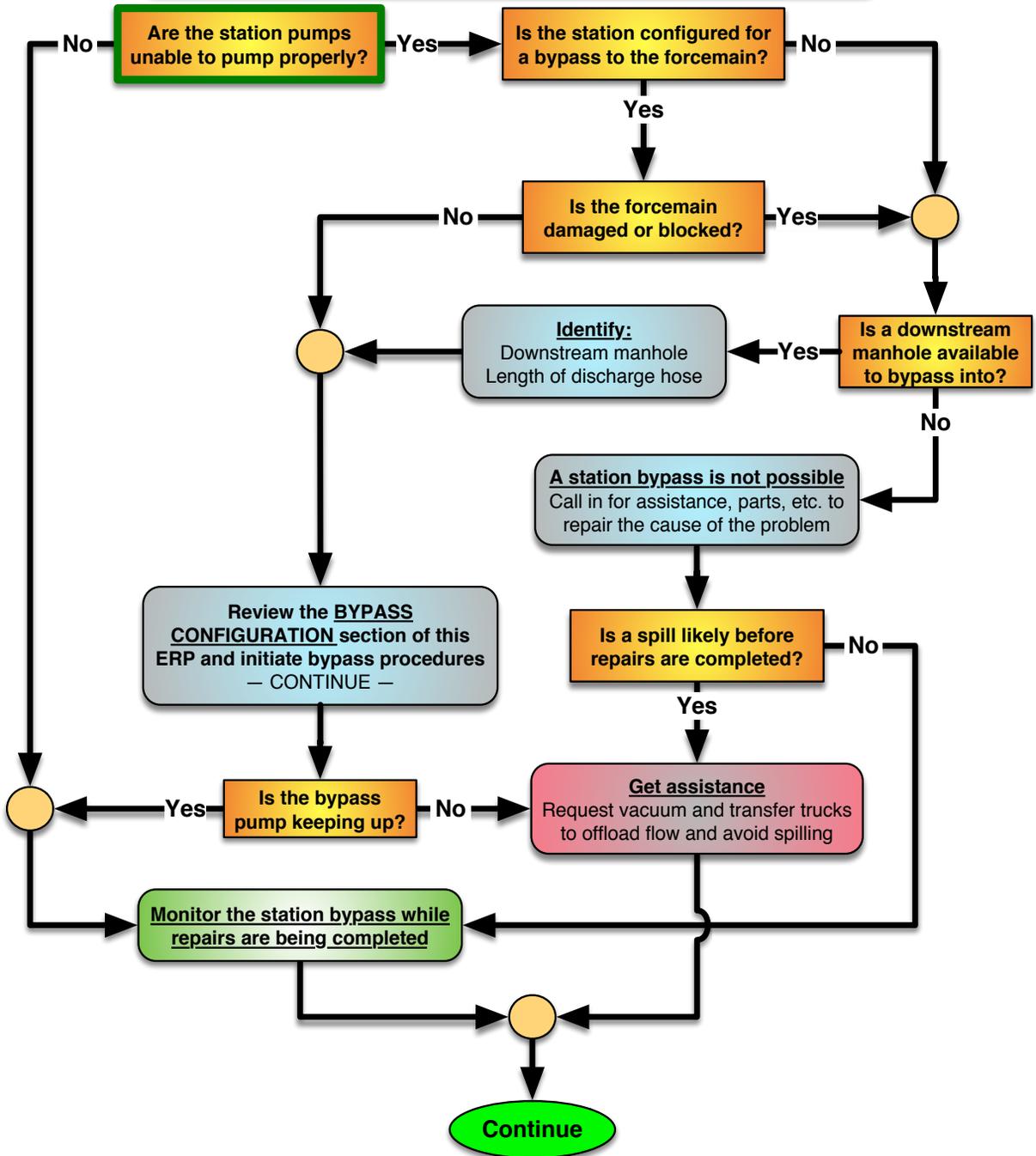
Decision Point



Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



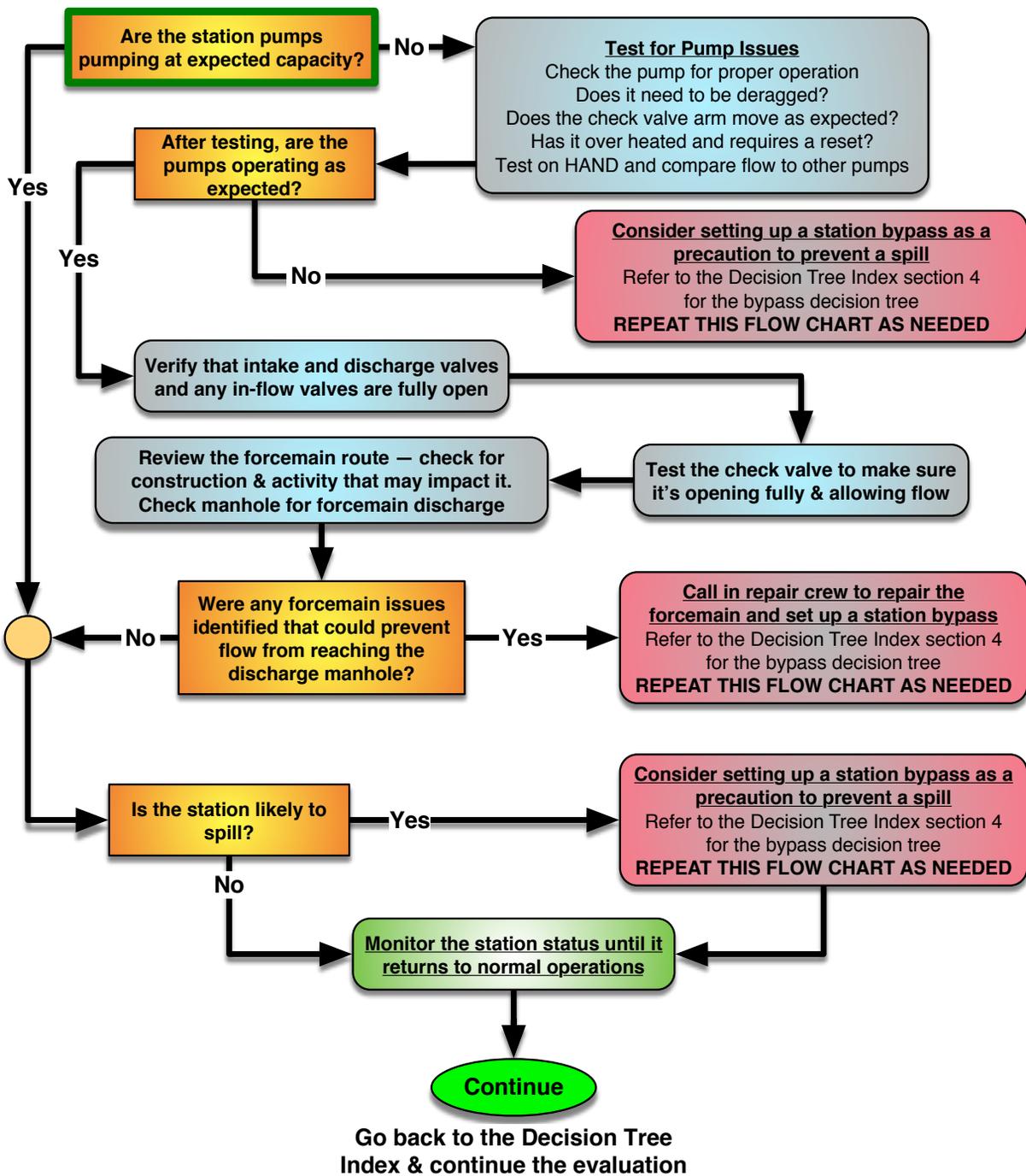
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5 Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND



Initial Question



Page-To-Page



Sequence Merge



Decision Point



Task/Direction Item

Spill Notification Procedures

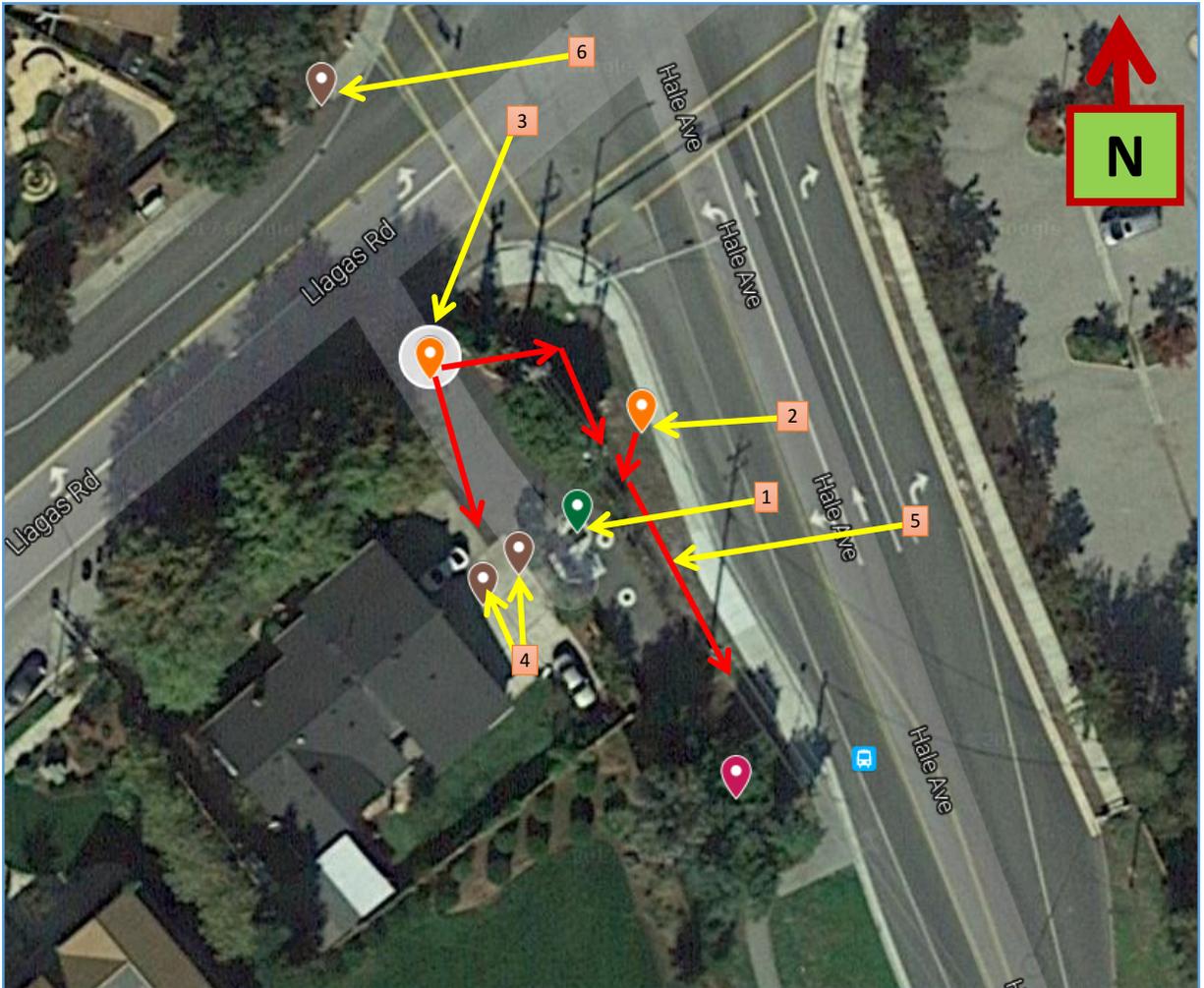
Pump Station H is located in the Jurisdiction of the
Central Coast Regional Water Control Board (#3)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

**See the Contact Information Section for contact information
Page 40**

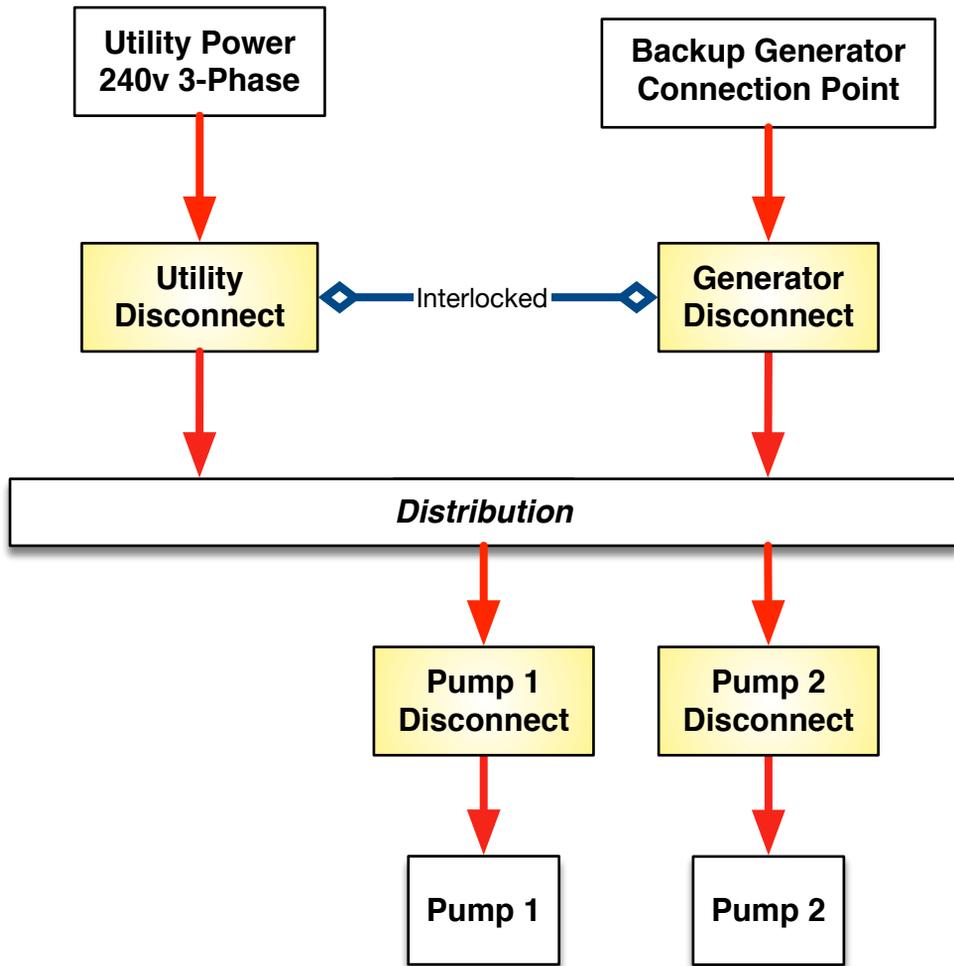
Spill Containment



Potential SSO Impact on State Water

	Type	Position from pump station	Containment
1	Pump station	-	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low point 1	~30' NE	
3	Low point 2	~60' NW	
4	Private Storm Drain Inlets	~30' W	
5	Drainage ditch to storm drain inlet	~15' E	
6	Storm Drain Inlet	~135' N	
7	Expected flow direction from system low point (RED ARROWS ON MAP)		

Pump Station Power Map



Done

Pump Station Control System



Comm

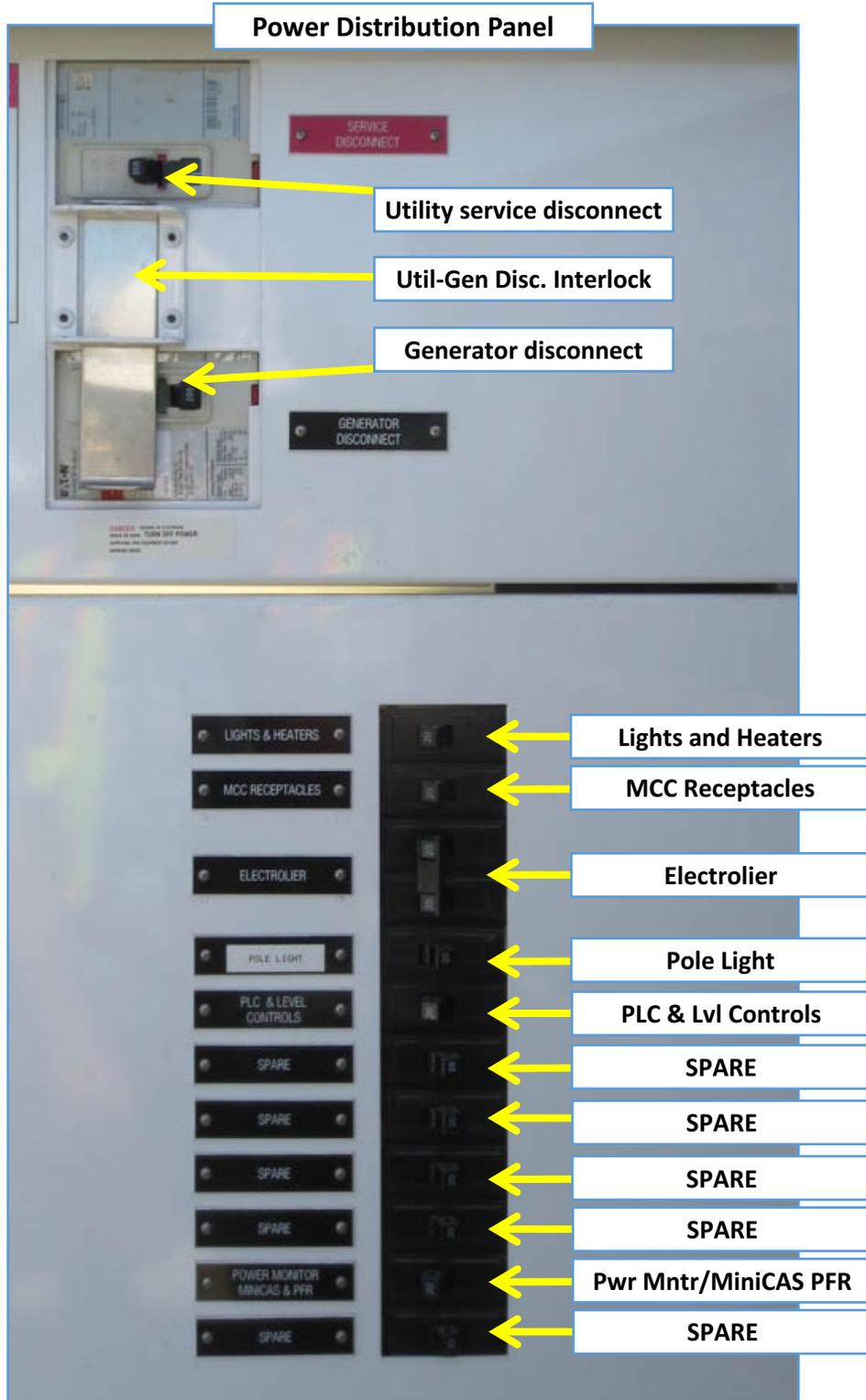
Station control panel

Utility service

Transfer switch & Power distribution

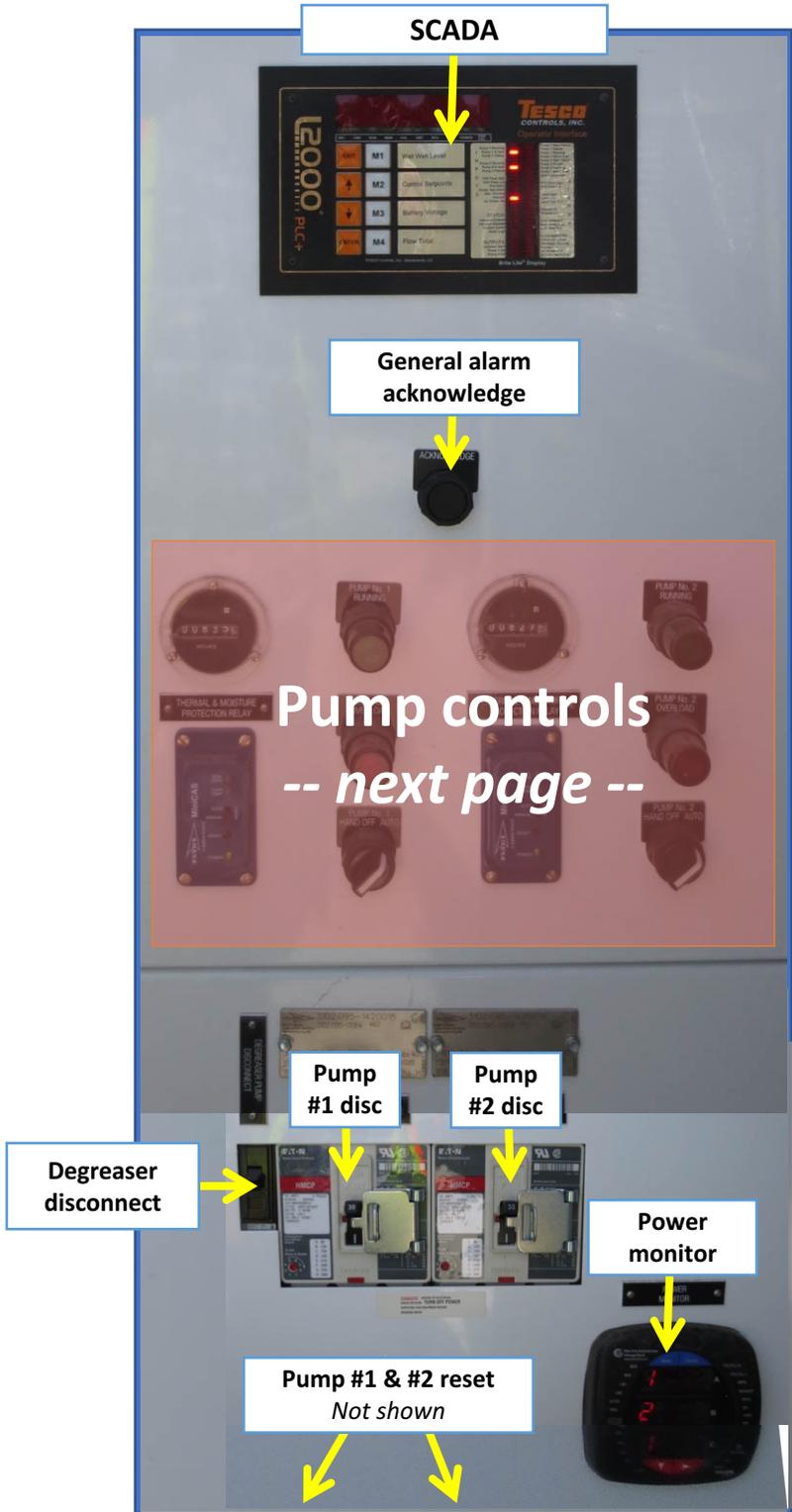
Next

Pump Station Control System



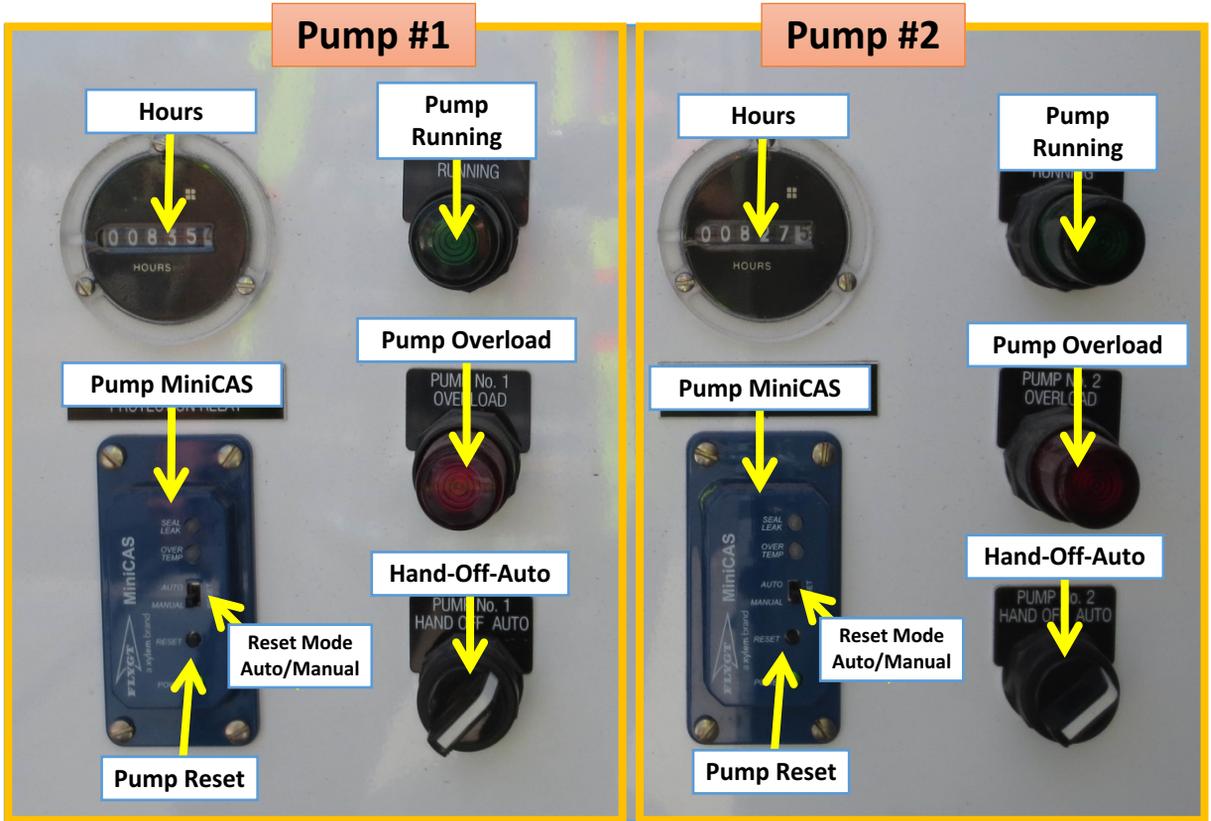
Next

Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

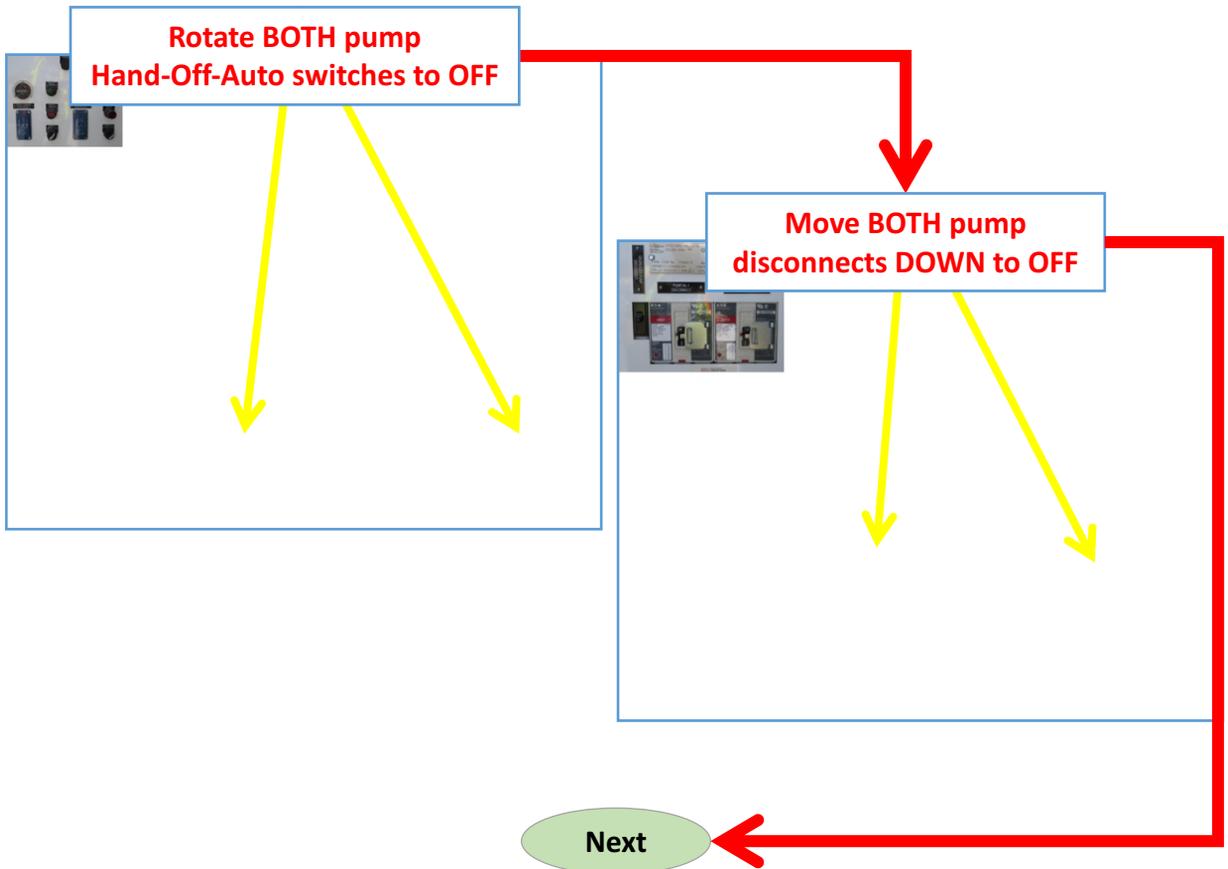
The pump station has power provided by the electrical utility and potentially by portable backup generator. Care must be taken to disable all energy sources.

Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

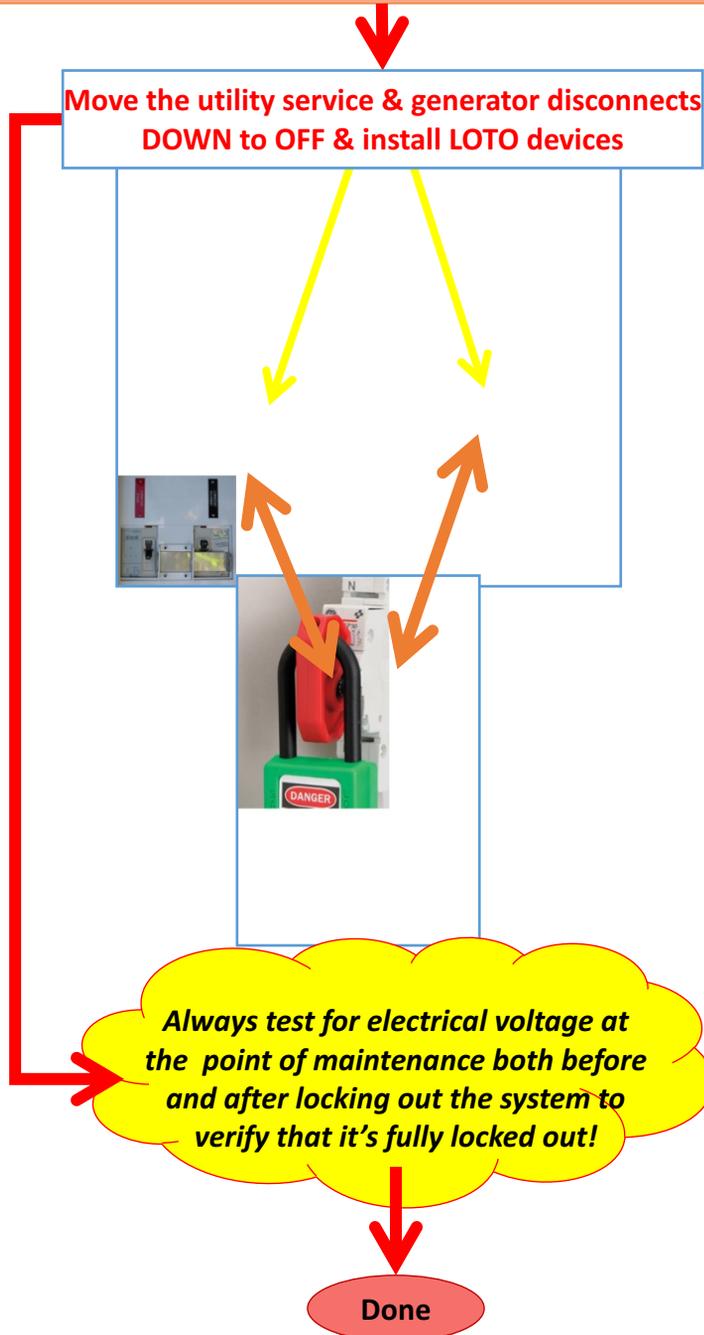
1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down (if attached) and disable the generator
4. Move the utility service disconnect to OFF & install LOTO device & tag
5. Test for voltage at the work location

Begin



Lockout/Tagout Procedures

If a portable generator is attached, shut it down and disable it from starting



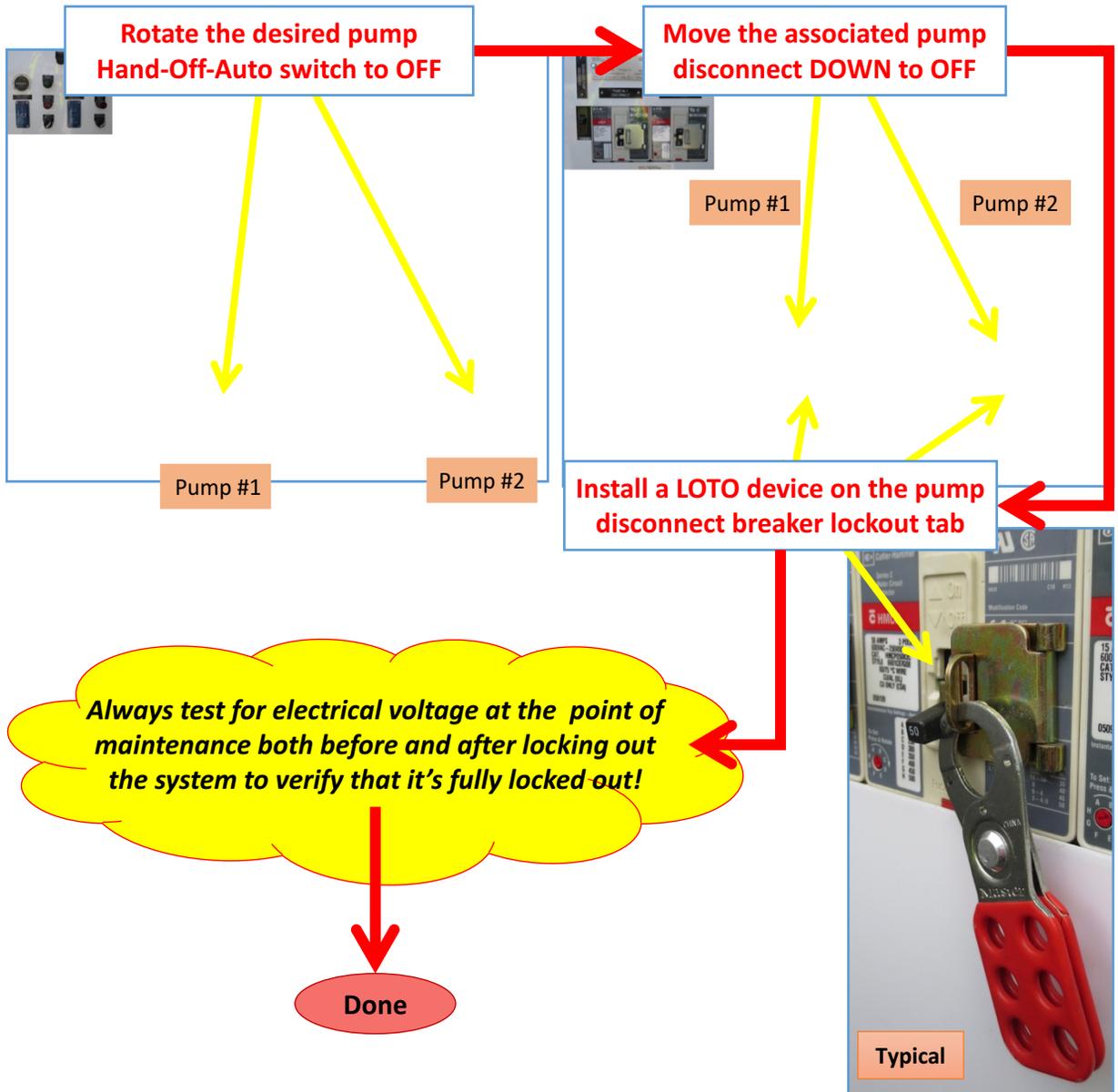
Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

On control panel for desired pump

1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel



Lockout/Tagout Procedures

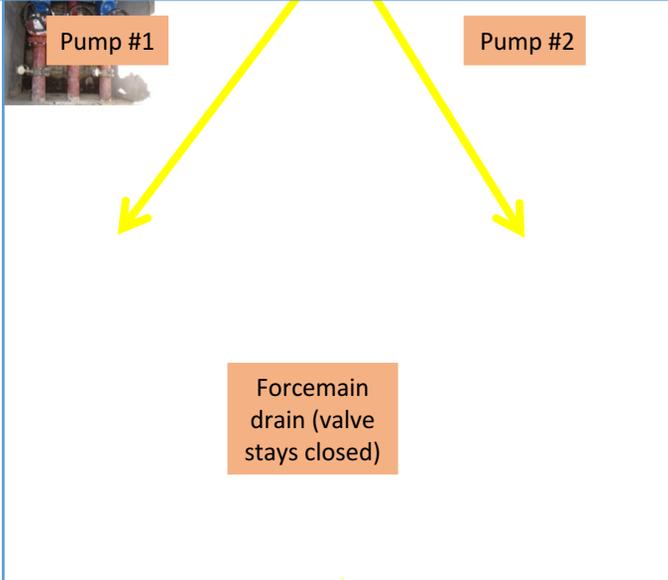
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

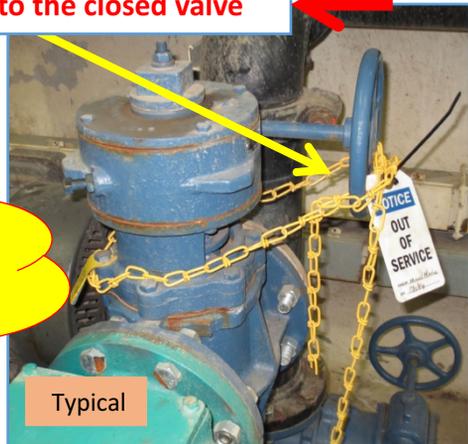
Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve

Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!



Done

Generator Operation

Portable Generator Connection & Operation

- Reduce the potential load on the station – Shut pumps off
- Shut the utility service disconnect OFF
- Unlock and move the manual transfer switch to GENERATOR
- Connect the generator
- Start the generator & then turn the generator output breaker ON
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**

**Move BOTH pump
disconnects DOWN to OFF**

Move the utility service disconnect RIGHT to OFF

Slide the interlock UP

Move the generator disconnect LEFT to ON

Next

Generator Operation

This station requires 240v 3-phase power
Be sure the generator is appropriately sized and configured for use

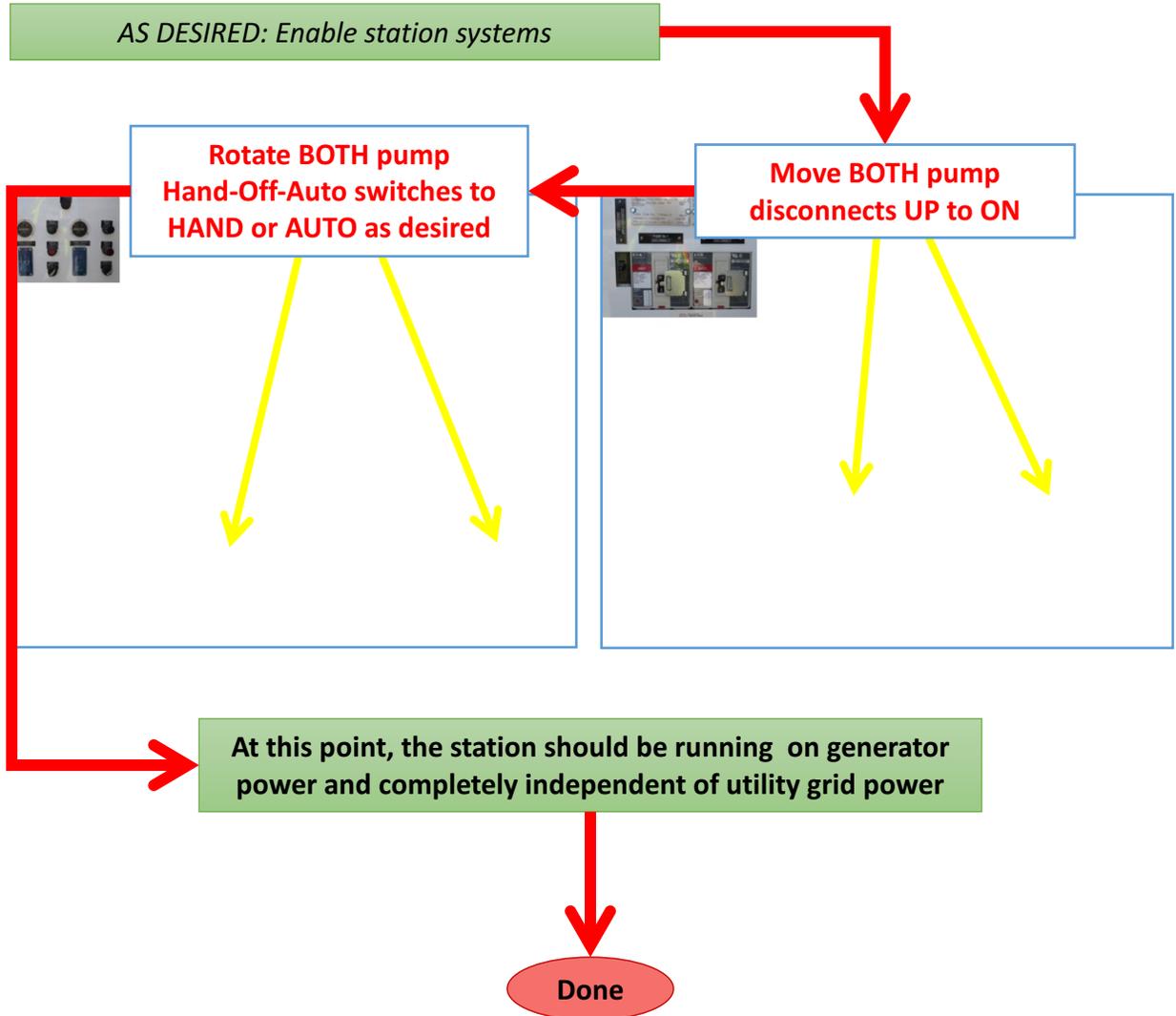
**Connect the portable generator to the
emergency generator power port**



**Follow the appropriate Portable Generator Procedures for
starting and bringing the portable generator online**
→ *Once it's operating, continue*

Next

Generator Operation



Generator Operation

To return to utility power

- Reduce the potential load on the station – Shut pumps off
- Shut the generator OFF & disconnect the generator
- Unlock and move the manual transfer switch to UTILITY/PG&E POWER
- Move the main utility service breaker to ON
- Enable the pumps as desired

Begin

Rotate BOTH pump
Hand-Off-Auto switches to OFF

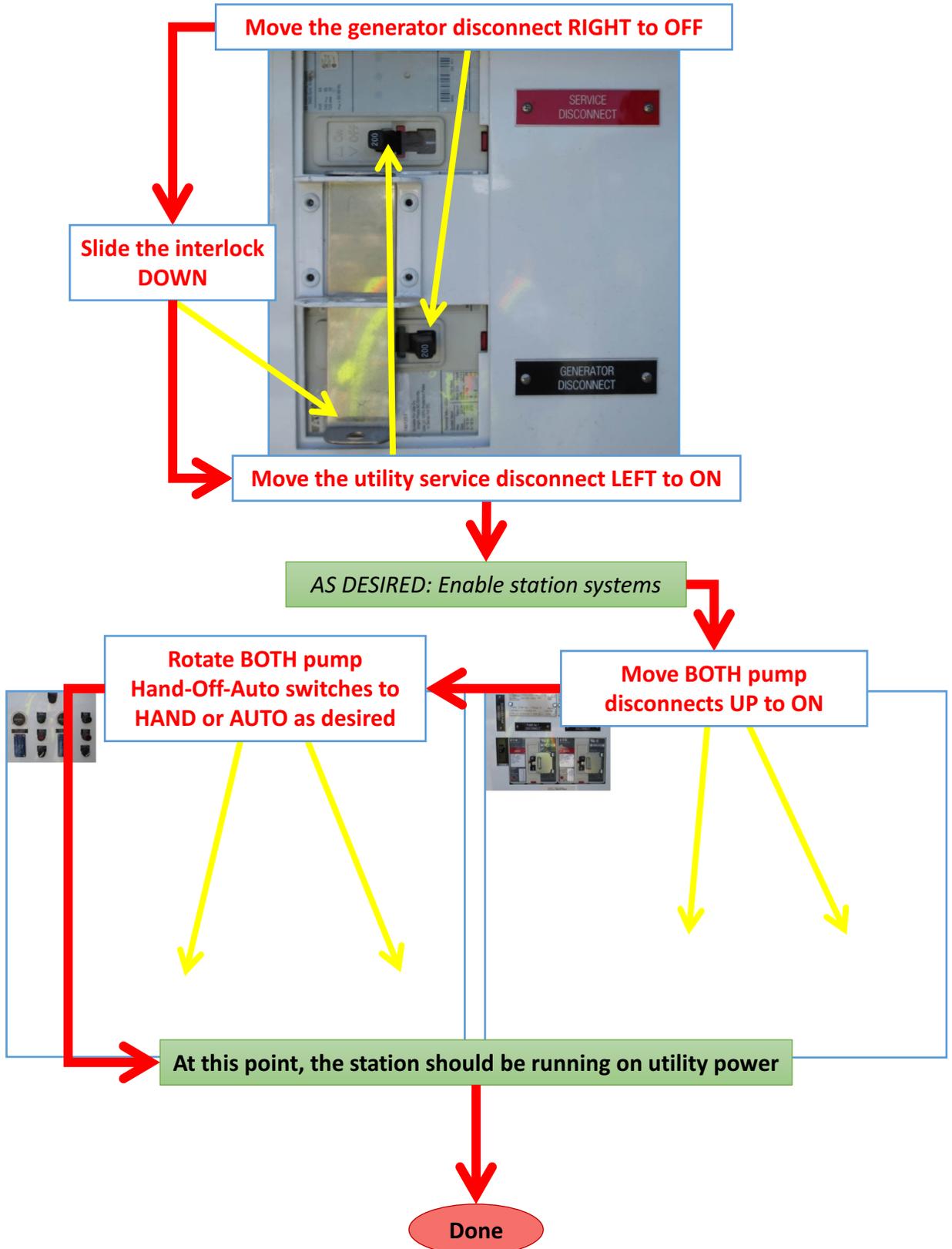
Move BOTH pump
disconnects DOWN to OFF

Follow the appropriate Portable Generator Procedures
for shut down and disabling the portable generator
→ *Once it's fully stopped, continue*

Disconnect the portable generator from
the emergency generator power port

Next

Generator Operation



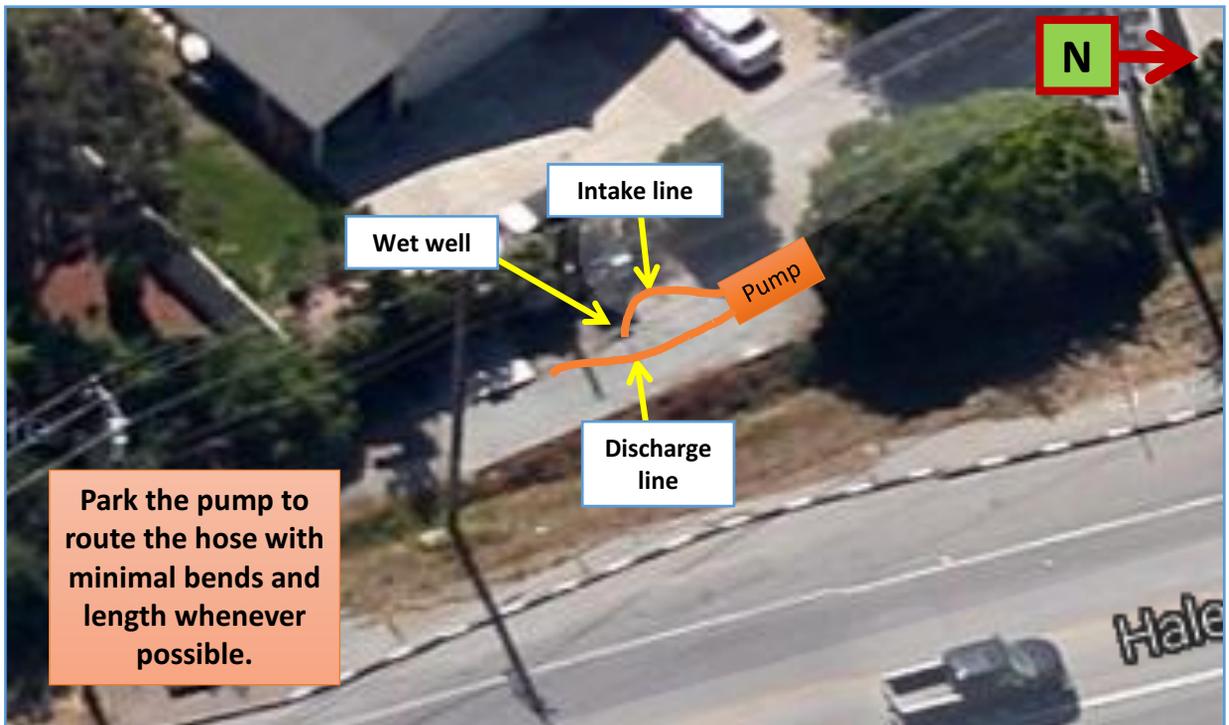
Bypass to Force Main

Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

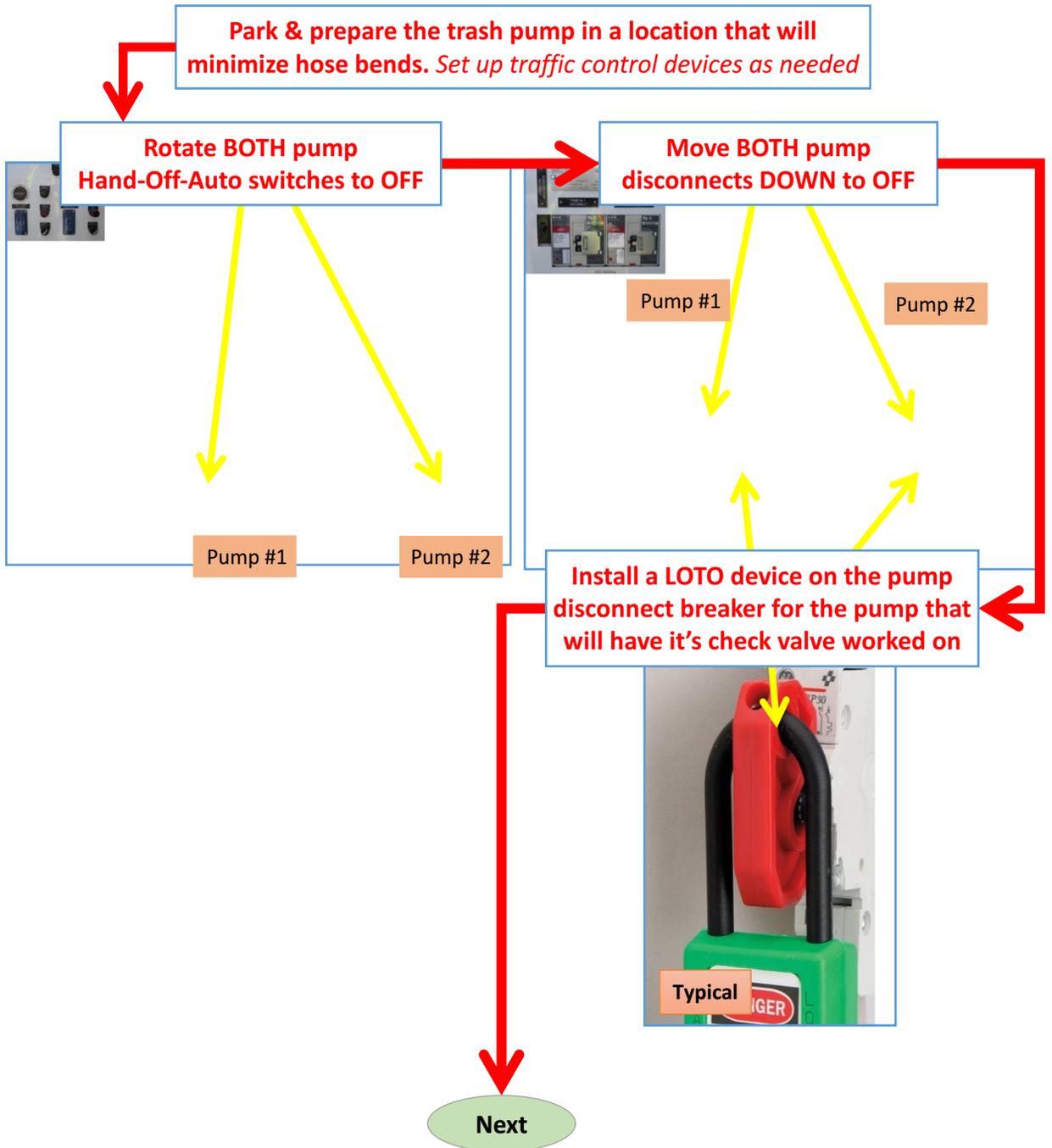
- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's use SOP for operation & begin bypass pumping
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the station valves to return to normal operations

Begin Procedure



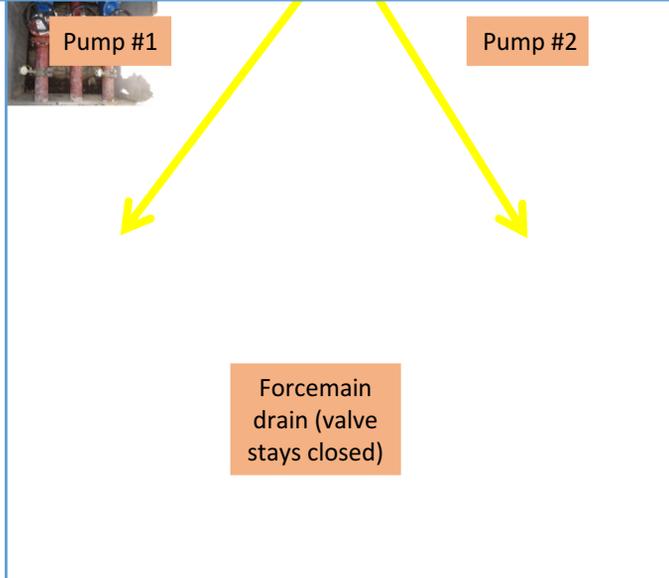
Next

Bypass to Force Main

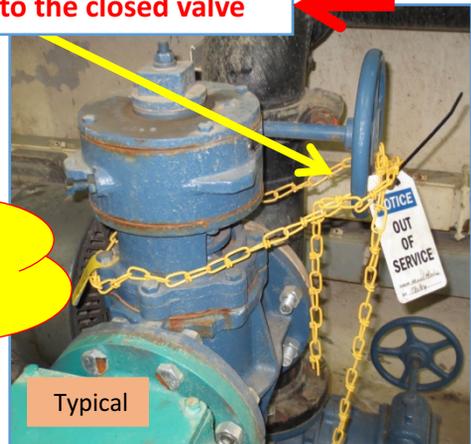


Bypass to Force Main

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Next

Bypass to Force Main

Install a flange/coupler onto the bypass valve

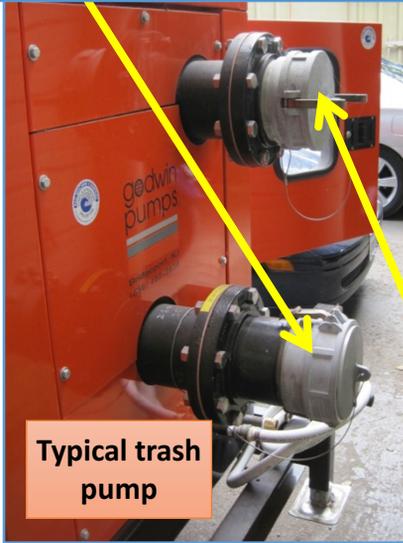


**Typical check valve-to-bypass port
coupler/adapter**

Next

Bypass to Force Main

Connect a suction hose with strainer-end to the intake port

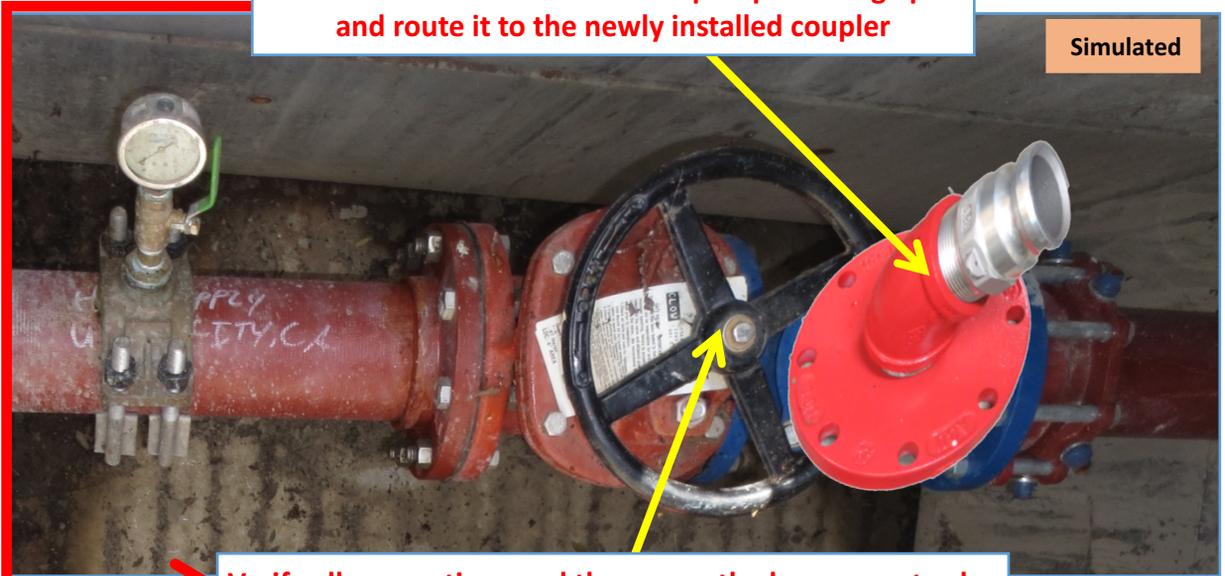


Lower the suction hose into the wet well



It's good practice to use a strainer end on the suction hose whenever possible

Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

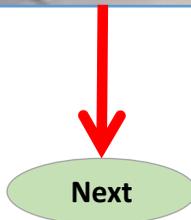
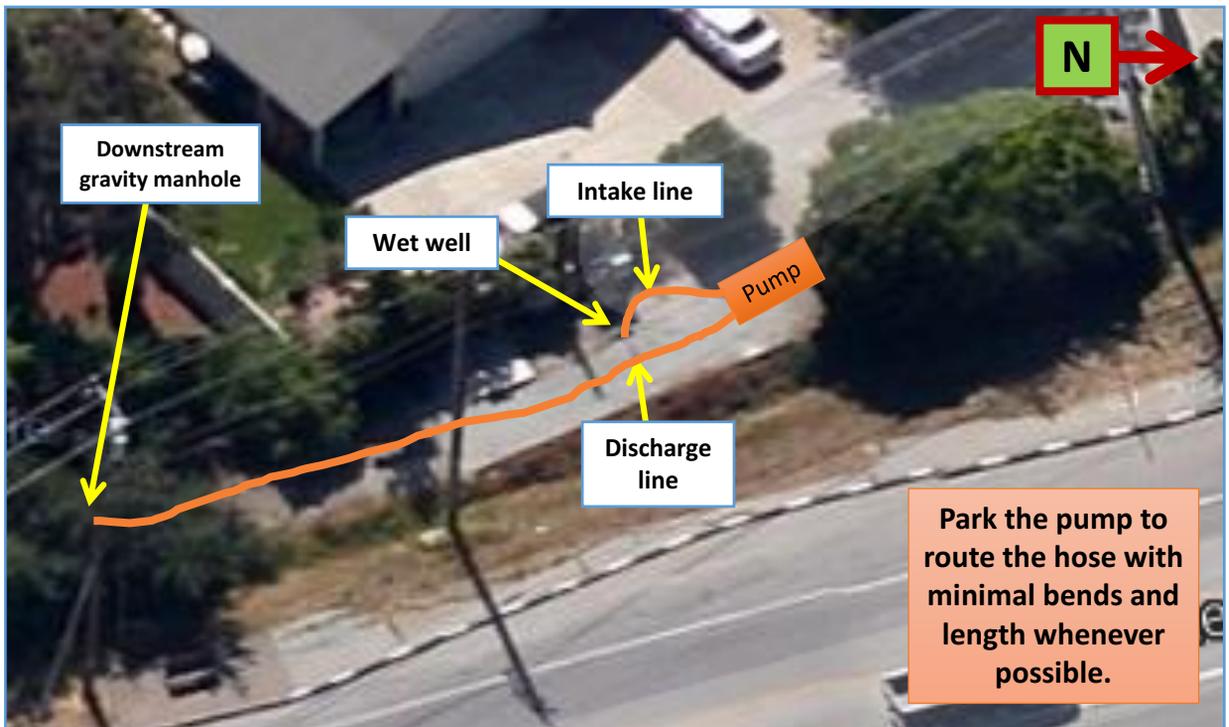
Bypass to Downstream Manhole

Procedure Summary

Configure the station for bypass:

Although a station bypass using a portable pump is possible (and detailed below), the long hold time makes regular tanker transfers a better option for most situations.

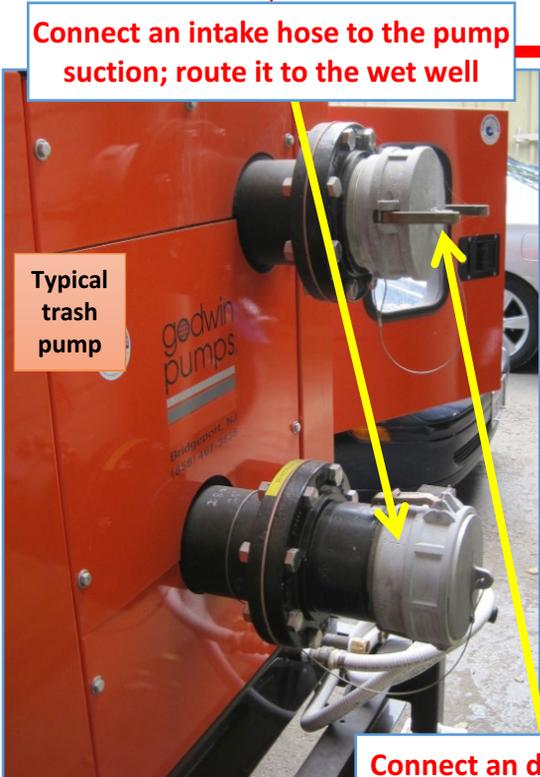
- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump; route the hose to the nearest gravity manhole
- Verify all connections
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the pump down & relieve any residual pressure
 - Disconnect the hoses and clean up
 - Return the station to normal operations



Bypass to Downstream Manhole

Park & prepare the trash pump
Select a parking spot to limit hose bending

Set up appropriate traffic control devices as needed



Connect an intake hose to the pump suction; route it to the wet well



Lower the hose into the wet well

Connect an discharge hose to the pump discharge port

Next

Bypass to Downstream Manhole

Route the discharge to the discharge point
Approx. GPS for the Discharge MH: 37.138373, -121.667085



Edge of
pump
station
asphalt



Bypass to Downstream Manhole

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing



Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Relieve any residual pressure in the discharge line
- Carefully disconnect, drain & stow the discharge line → ***Be careful to release any residual pressure and sewage back into the wet well to avoid a spill!***
- Close the downstream manhole
- Carefully disconnect, drain & stow the intake line
- Close the wet well
- Return the station to normal operations as desired
- Clean up and depart



Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

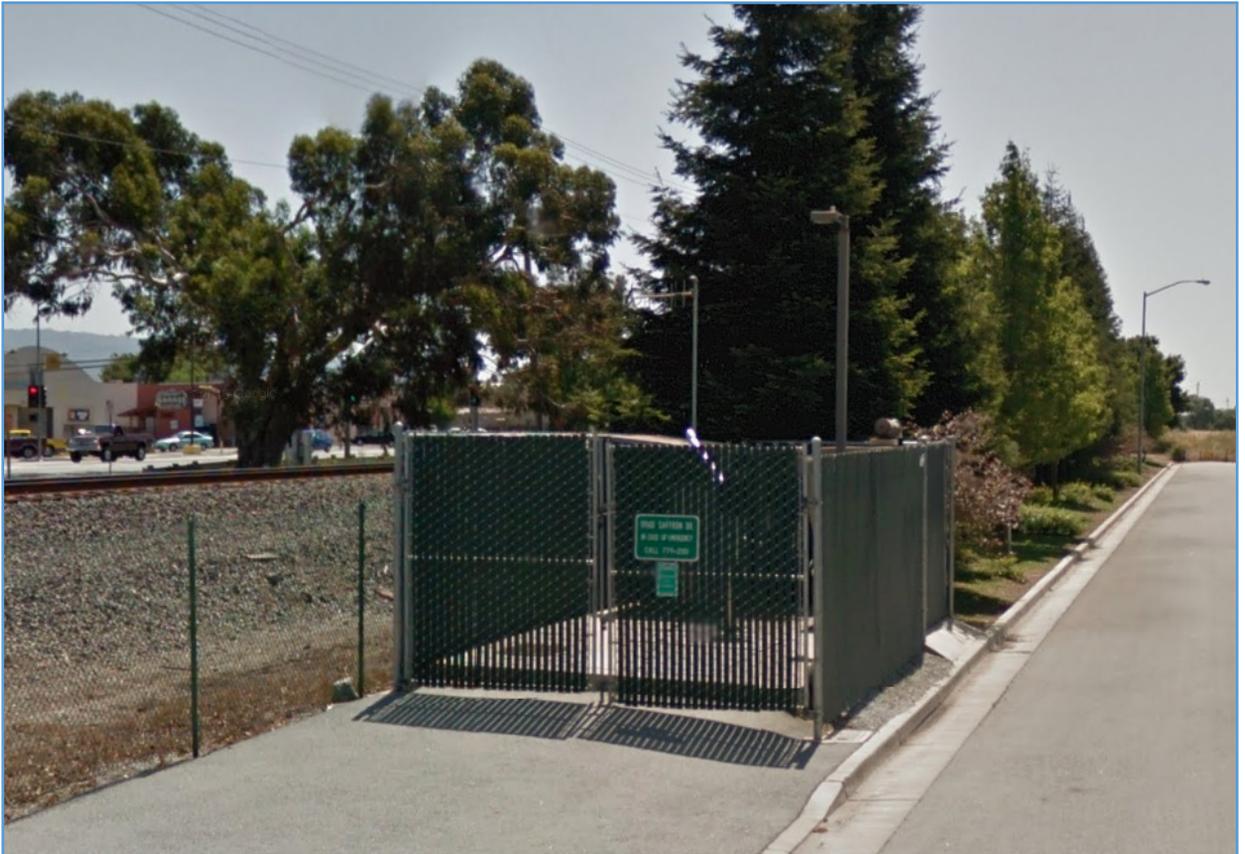
Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

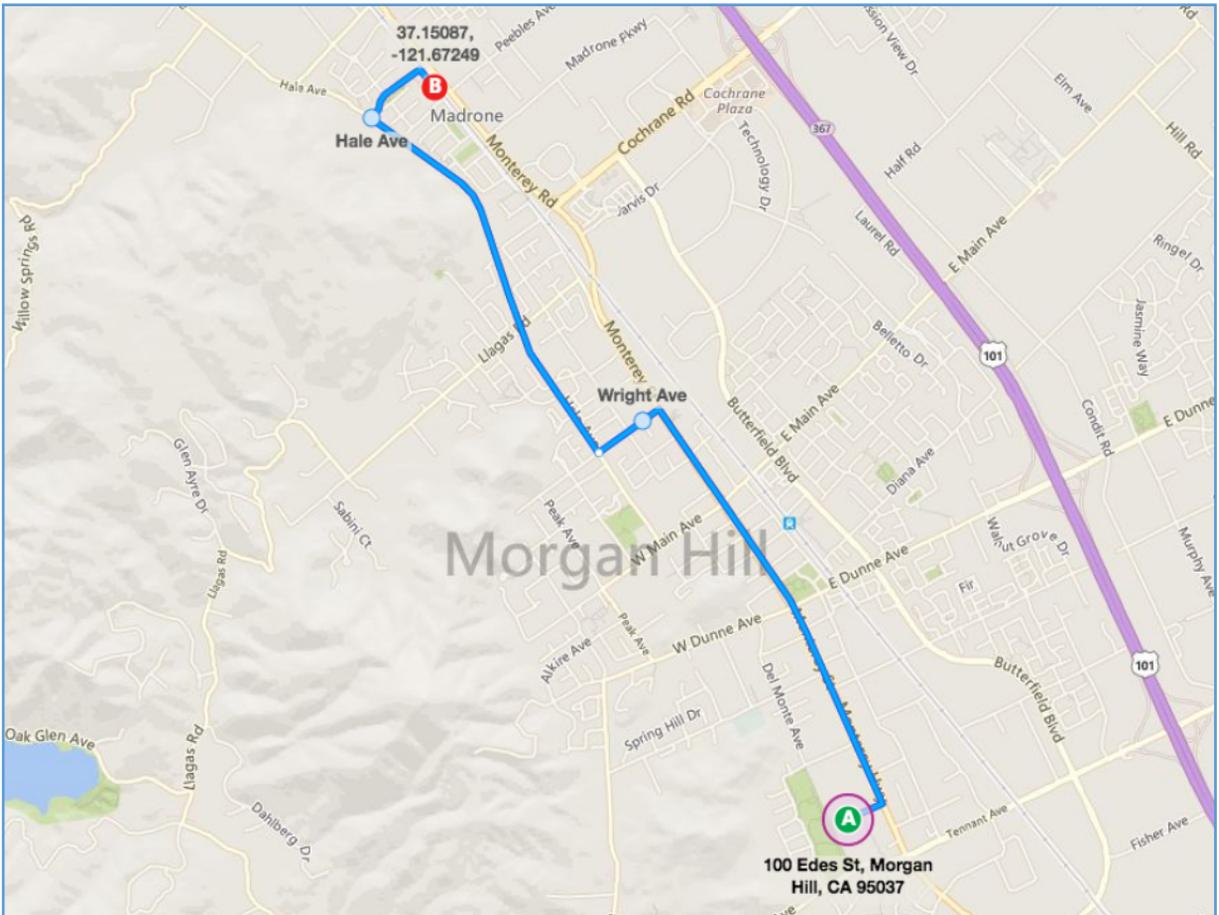


Pump Station PS-I
19160 Saffron Drive

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
Spill Containment	15
Pump Station Power Map	16
Pump Station Control System	17
Lockout/Tagout Procedures	22
Generator Operation	26
Bypass to Force Main	38
Contact Information	44
System Map	48

Pump Station Technical Information

Name	PS-I – 19160 Saffron Drive Pump Station
Address	19160 Saffron Dr., Morgan Hill, CA 95037
Lat., Long.	37.15087, -121.67249
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Turn Left onto Wright Ave. Turn Right onto Hale Ave Turn Right onto Curry Ave Turn Right onto Saffron Dr. The pump station will be on the right adjacent to the railroad tracks



Pump Station Technical Information

Station Information	
Wet well dimensions & capacity	Tank 1: 8' diameter x 29' deep; 10,904 gallons Total Capacity: 10,904 gallons
Est. hold time (dry weather)	3 hours
Low point (likely overflow point)	There are three nearby manholes that may overflow in the event of a pump station shutdown: Approx. GPS: 37.15083, -121.67253 Approx. GPS: 37.15131, -121.673 Approx. GPS: 37.15173, -121.67349
Upstream pump station(s)	none
Downstream pump station	PS-G
Forcemain Data	6" x 176'
Discharge location	37.151206, -121.671977

Pump Capacities		
Pump	Motor & Pump	Capacity
#1	Flygt 3127/489, 7.5hp, 240v 3-phase	150 gpm
#2	Flygt 3127/489, 7.5hp, 240v 3-phase	150 gpm

Station Power		
Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	2468523005
	PG&E Meter #	1009919874
	PG&E Outage Block	50
	Priority	Sewer pump station
Backup Generator	The station is equipped with a SYNERGY 30JDA 30JDA permanently installed backup generator.	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port. However the station may be bypassed by installing an adapter onto one of the check valves.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

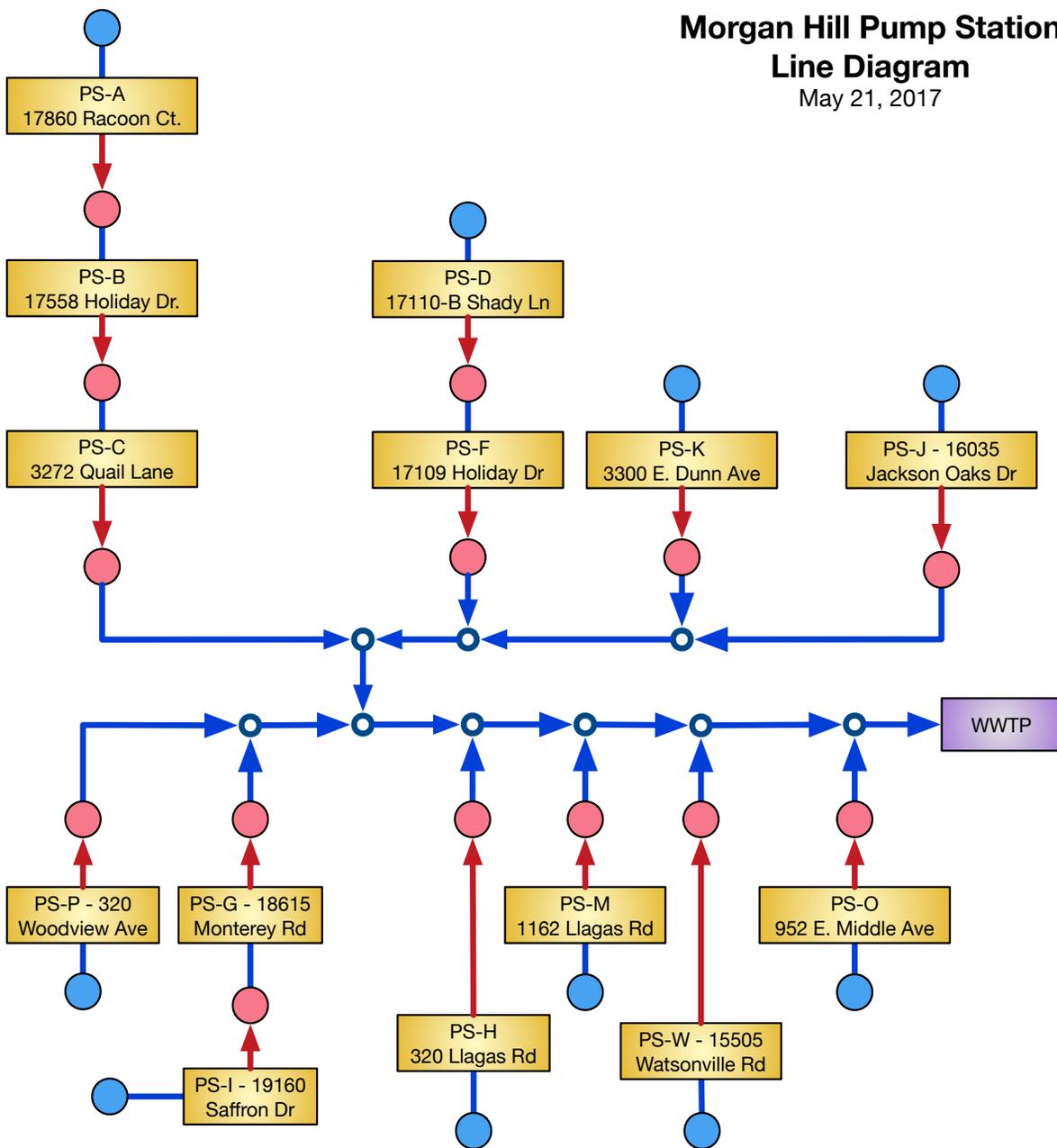
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

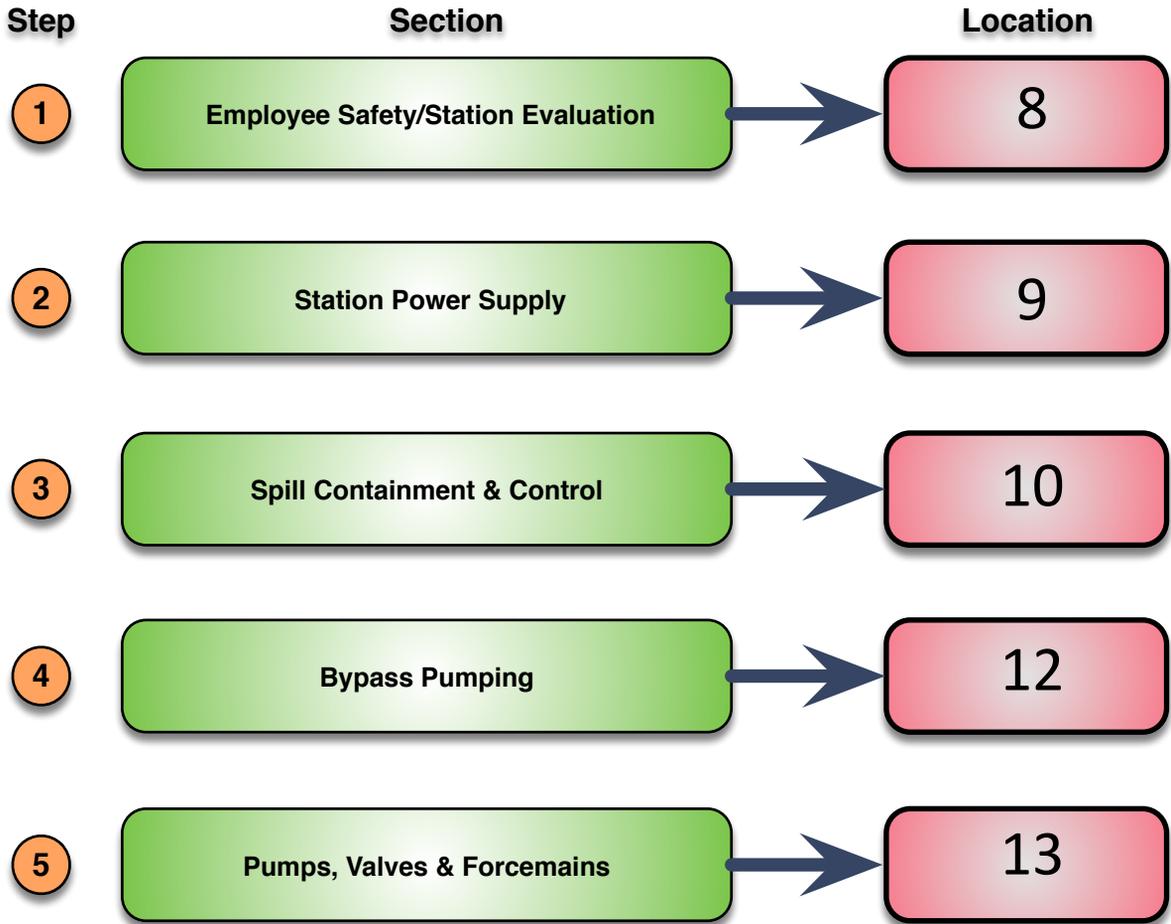
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
● Gravity Feed Only	→ Force main & flow direction
● Force Main Discharge	→ Gravity line & flow direction
◆ Force Main Junction	PS Morgan Hill managed PS
○ Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide **Decision Tree Index**

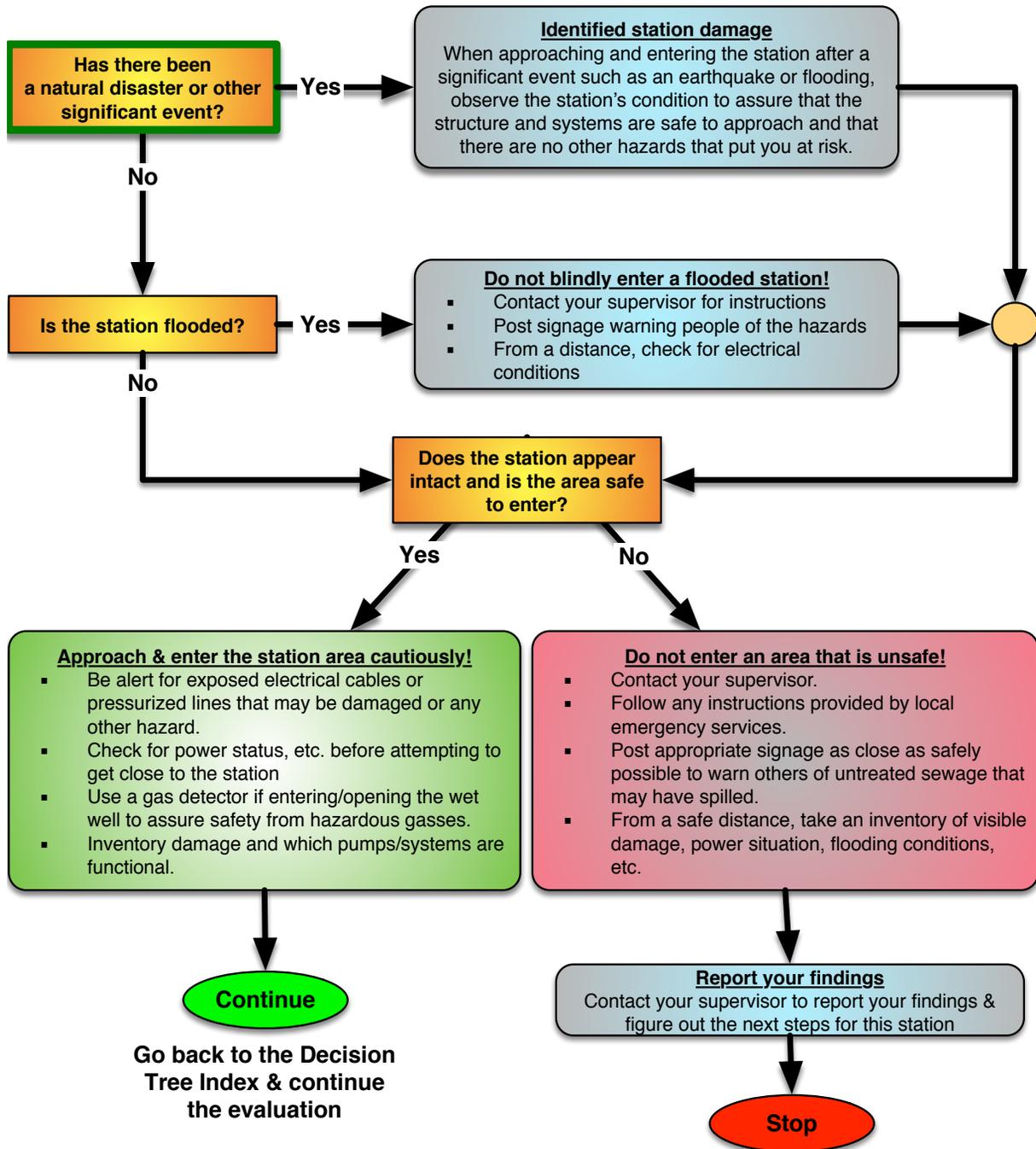


LEGEND

<p>? Initial Question</p> <p>X Page-To-Page Link</p> <p> Sequence Merge (Watch arrows for flow direction)</p>	<p> Decision Point</p> <p> Task/Direction Item</p>
--	---

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

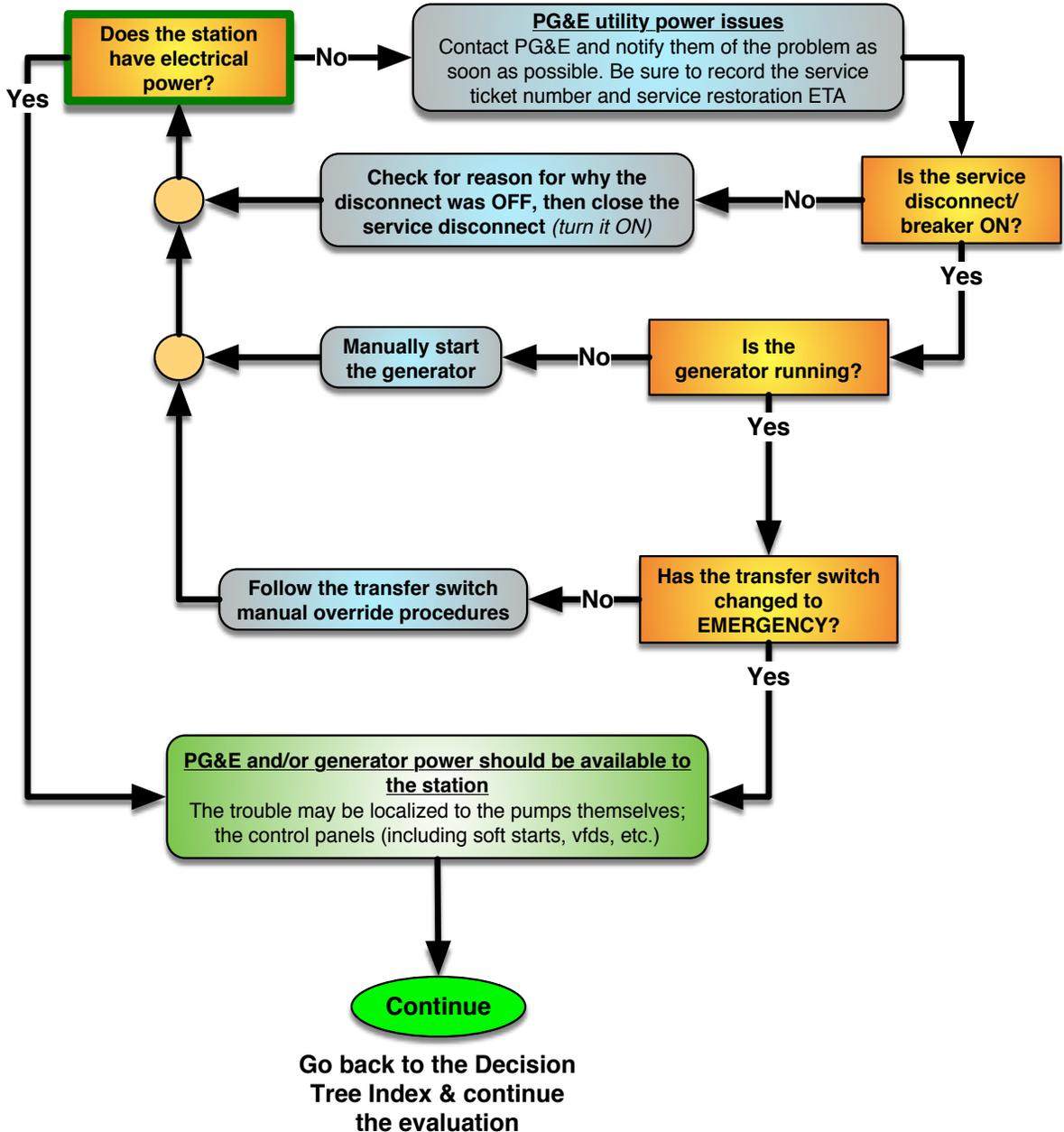


LEGEND

- Initial Question
- Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply

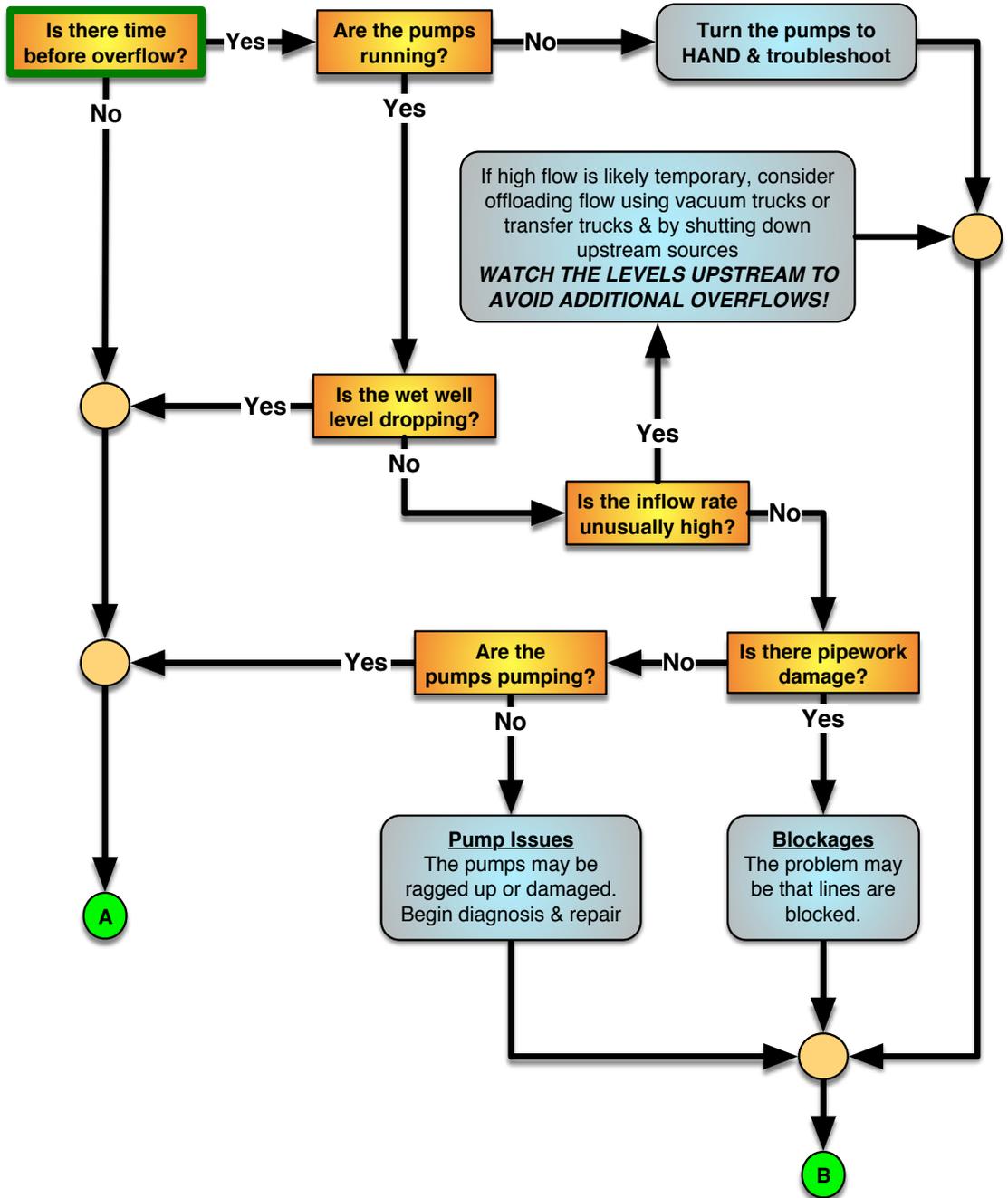


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

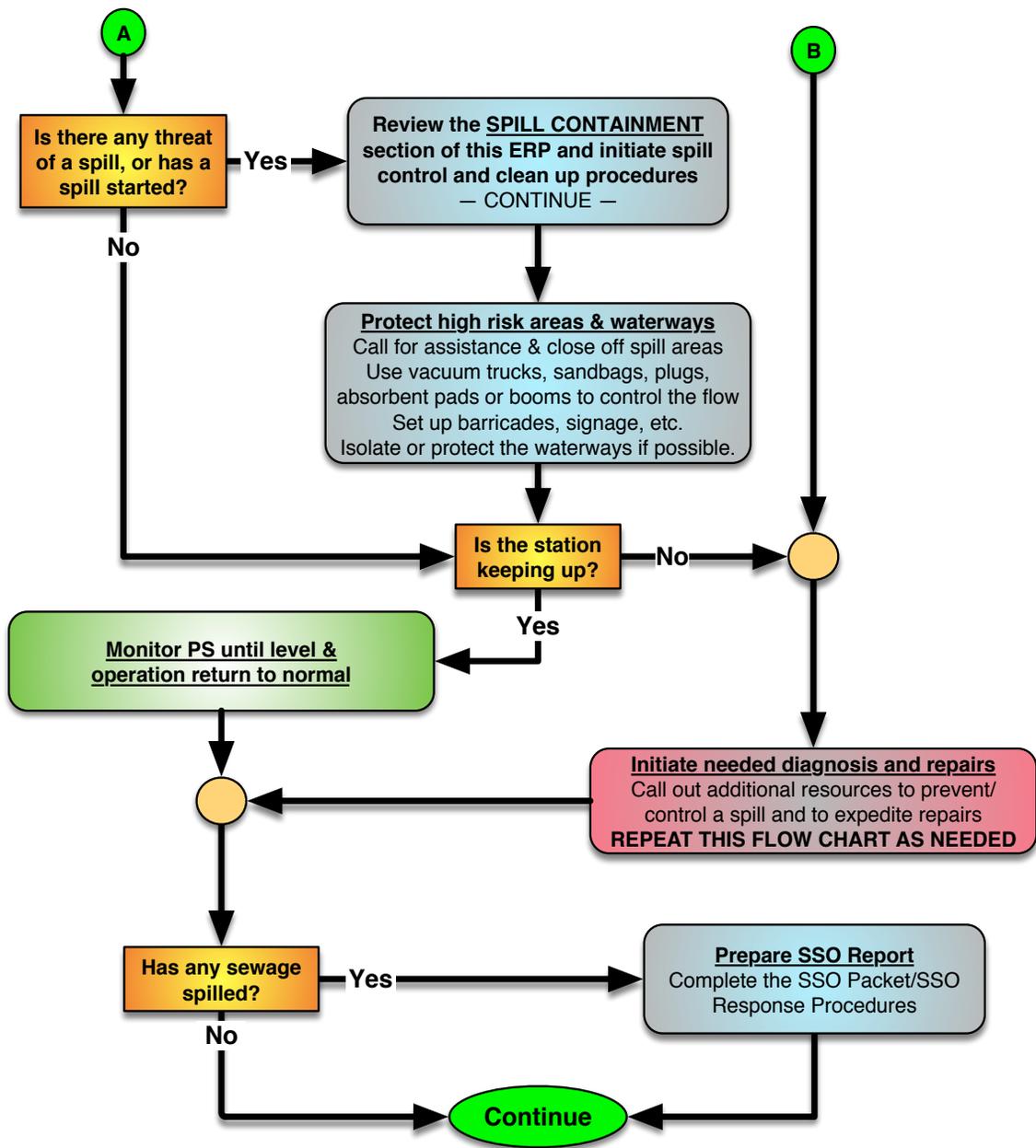
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ○ Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - Continued



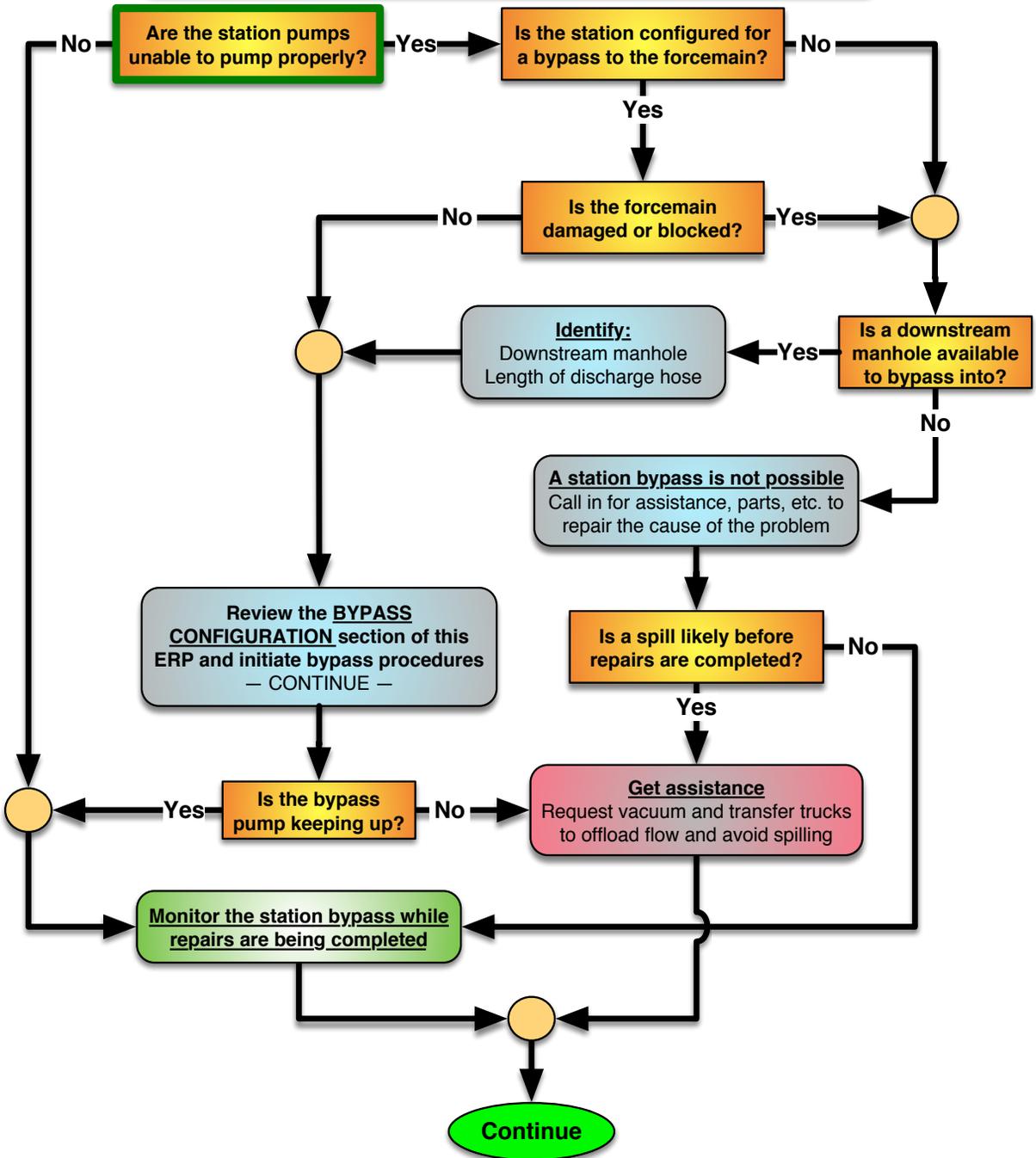
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



Go back to the Decision Tree Index & continue the evaluation

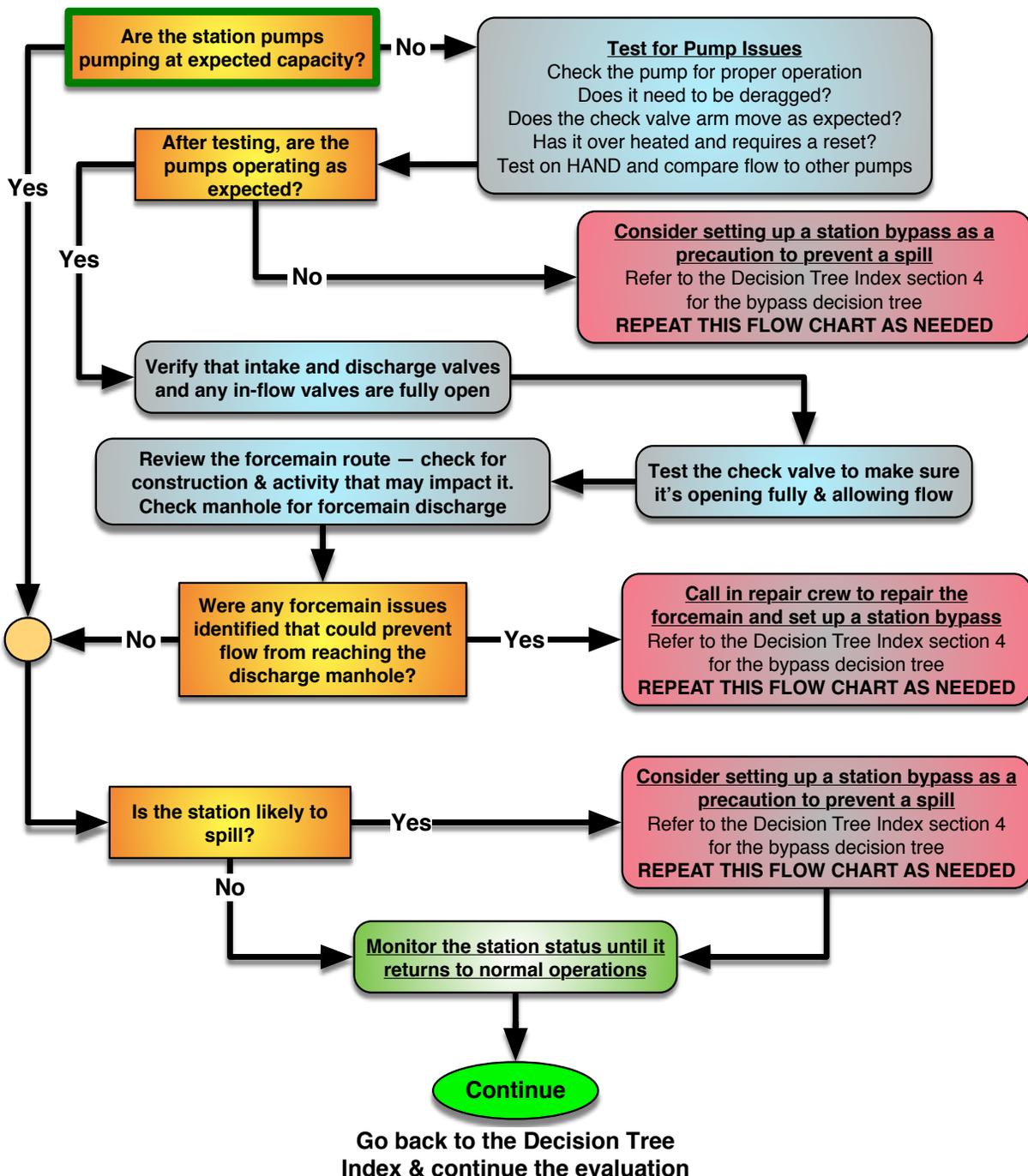
LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5

Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND



Initial Question



Page-To-Page



Sequence Merge



Decision Point



Task/Direction Item

Spill Notification Procedures

Pump Station I is located in the Jurisdiction of the
San Francisco Bay Regional Water Control Board (#2)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

**See the Contact Information Section for contact information
Page 44**

Spill Containment

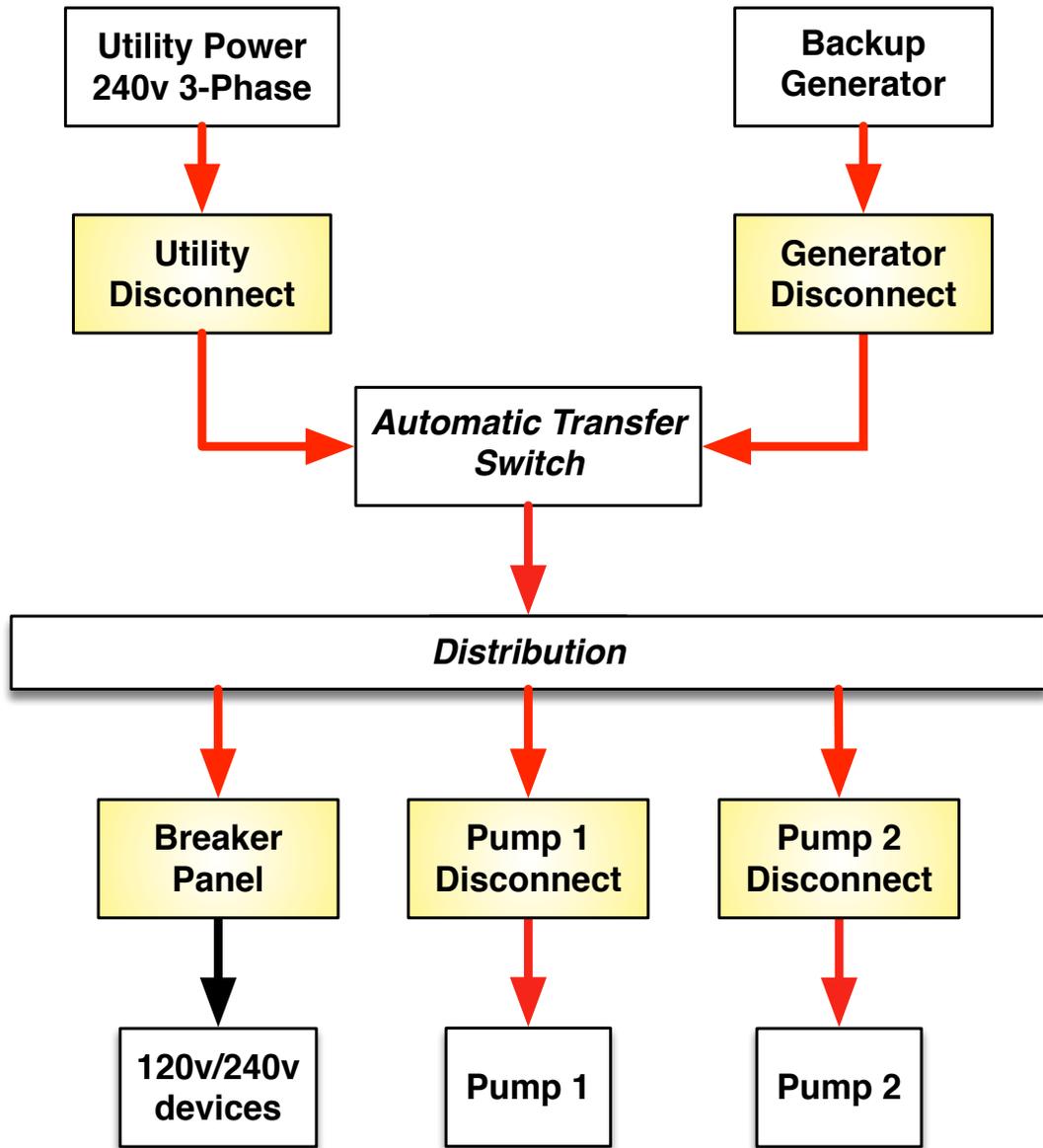


Potential SSO Impact on State Water

	Type	Position from pump station	Containment
1	Pump station	--	System does not spill at pump station. Use sandbags or booms for a holding area and/or a vac. truck to clean up.
2	Low point 1	~15' SW	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
3	Low point 2	~220' NW	
4	Low point 3	~425' NW	
5	Storm Drain	~380' NW	
6	Storm Drain	~440' NW	

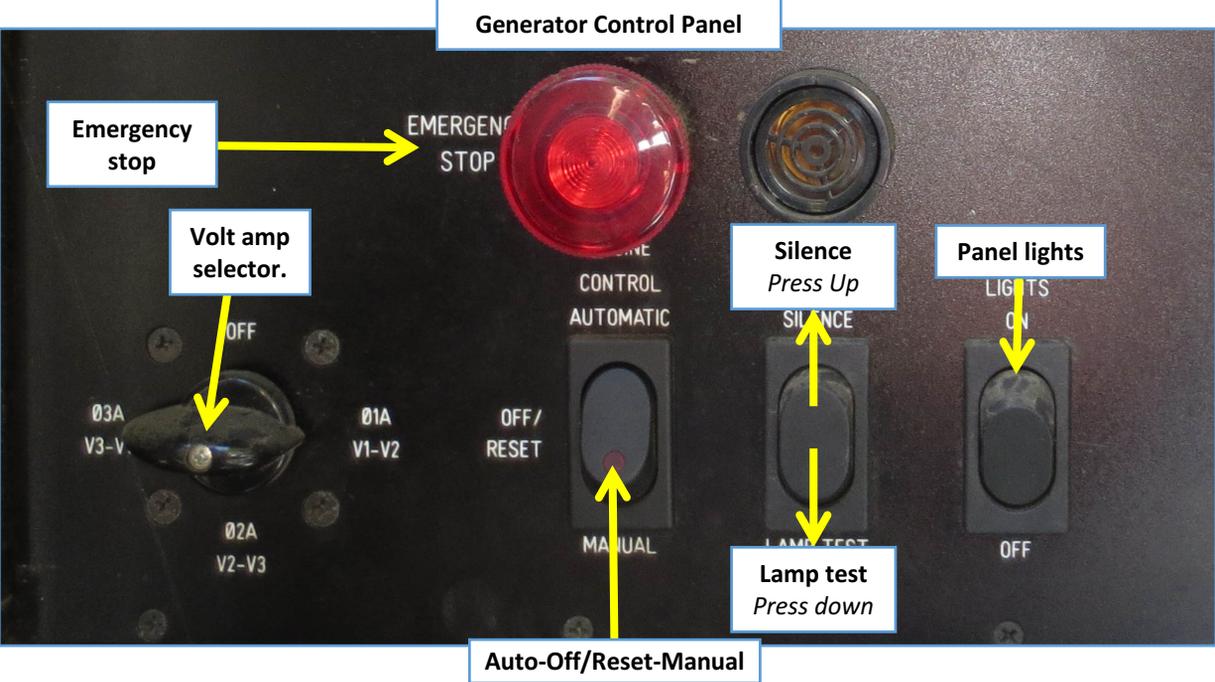
Red arrows indicated most likely flow direction from system low points

Pump Station Power Map



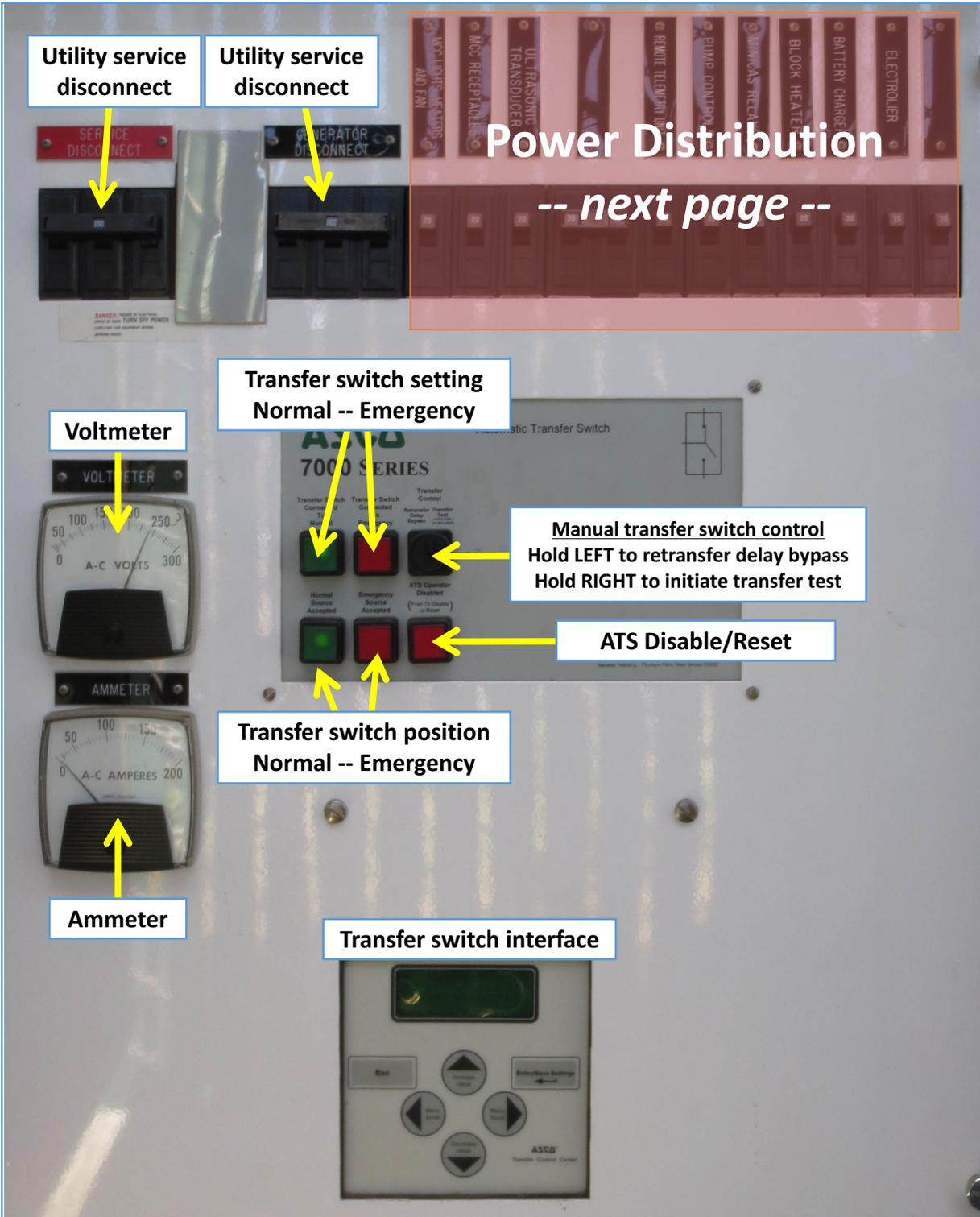
Done

Pump Station Control System



Next

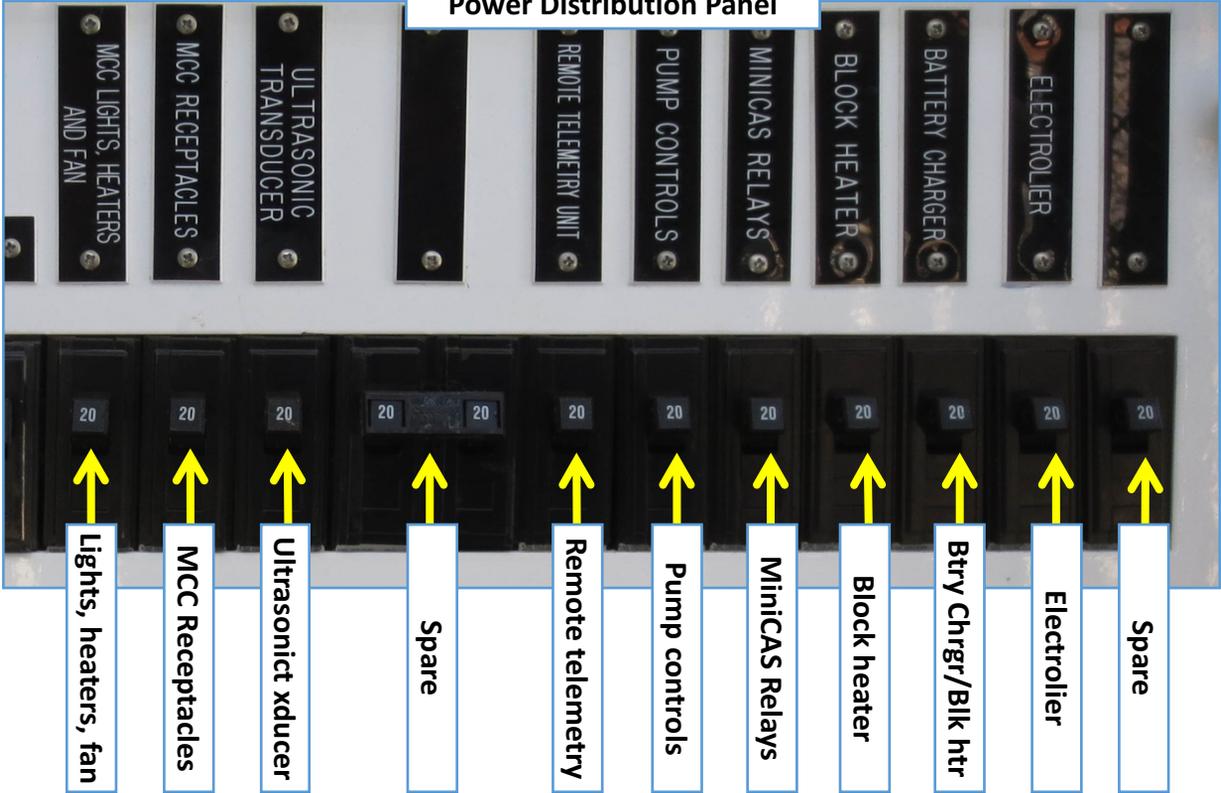
Pump Station Control System



Next

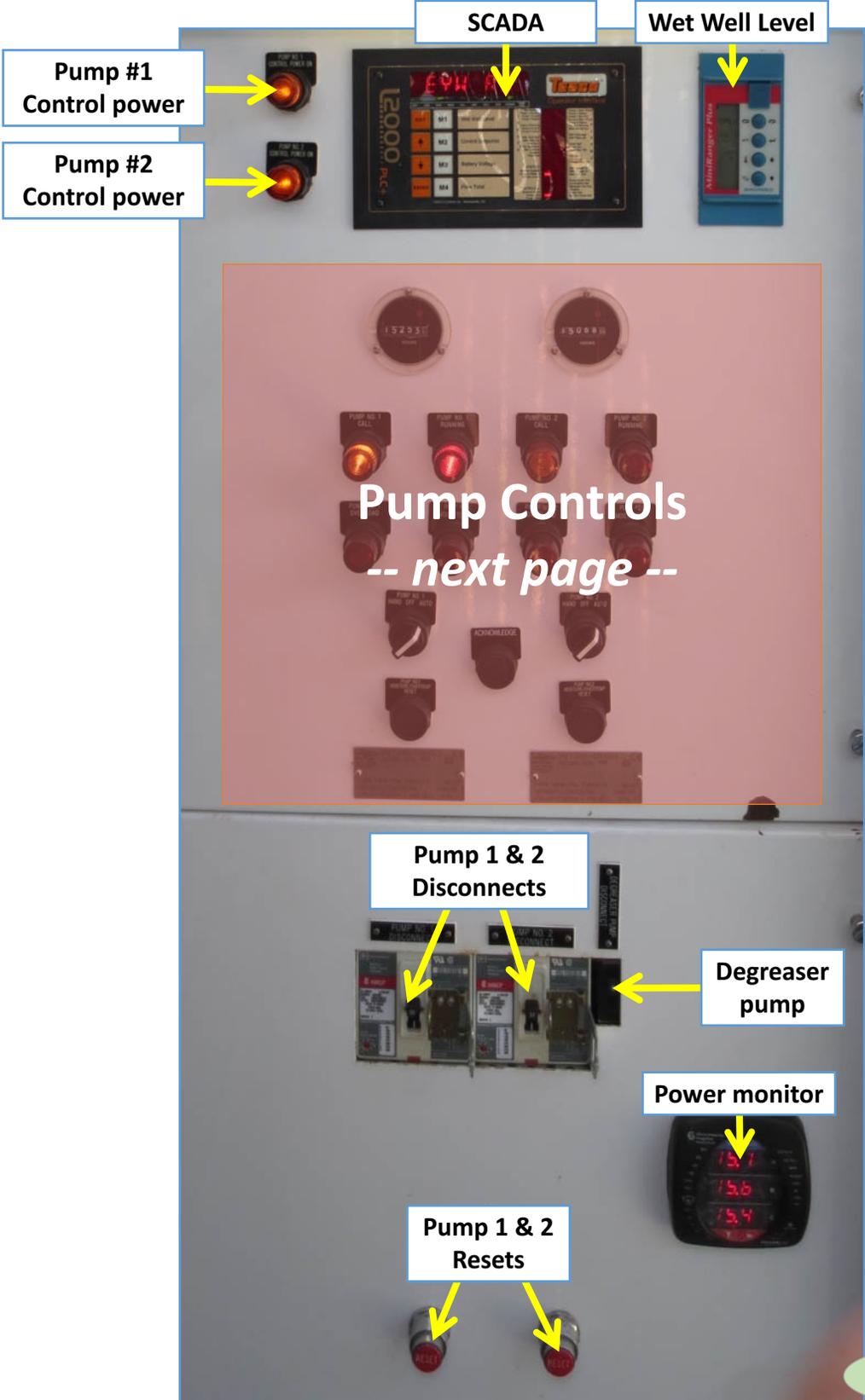
Pump Station Control System

Power Distribution Panel



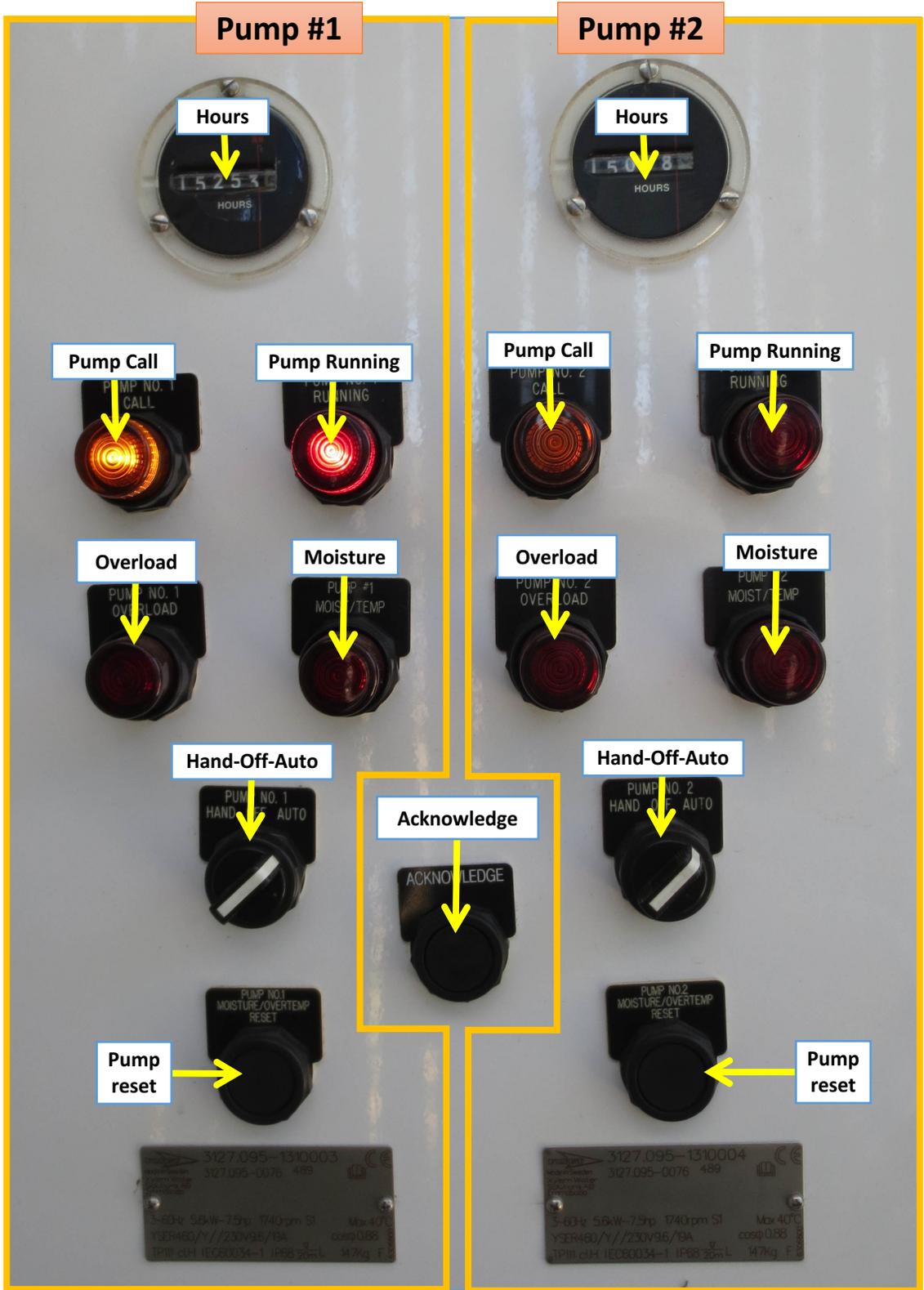
Next

Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

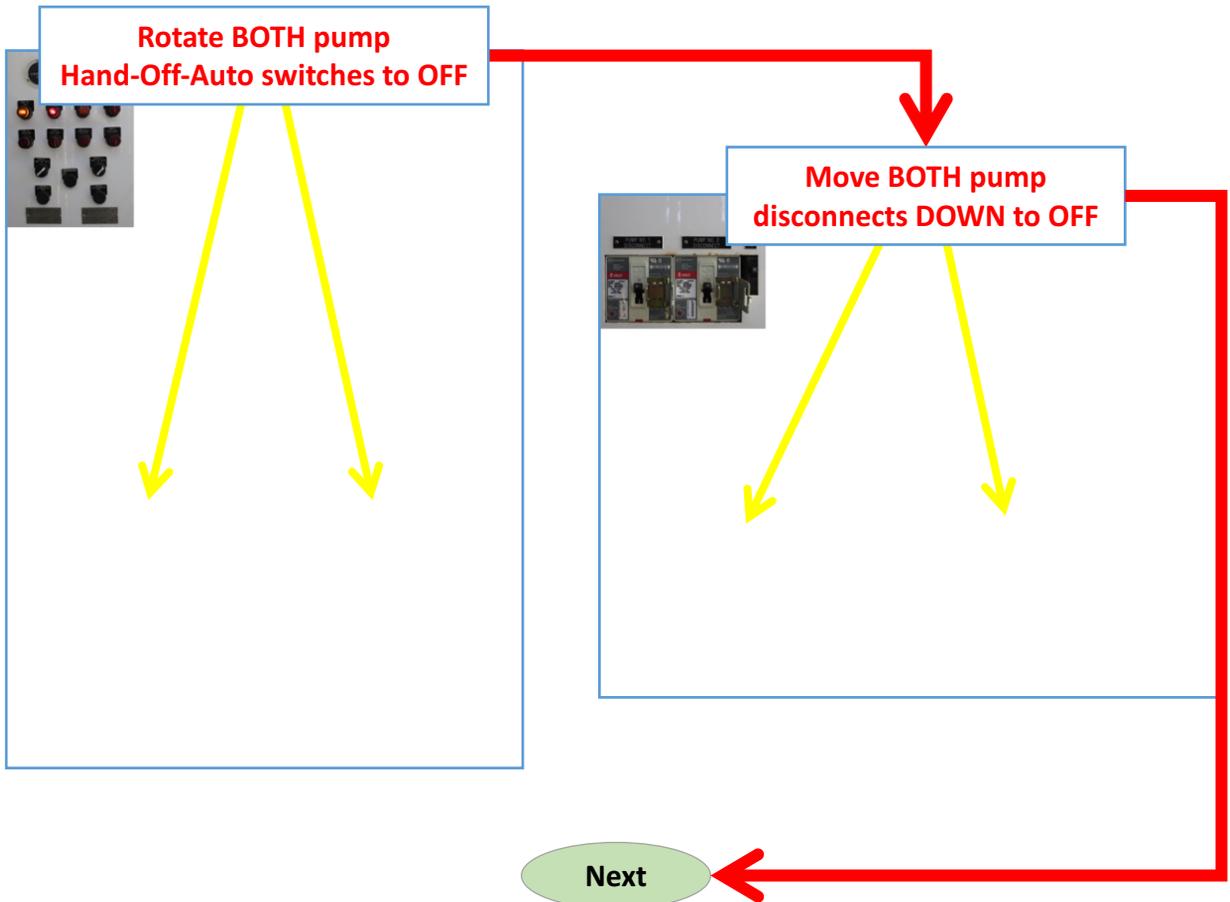
The pump station has power provided by the electrical utility and by an automatic backup generator. Care must be taken to disable all energy sources.

Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down and disable the generator
4. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
5. Test for voltage at the work location

Begin

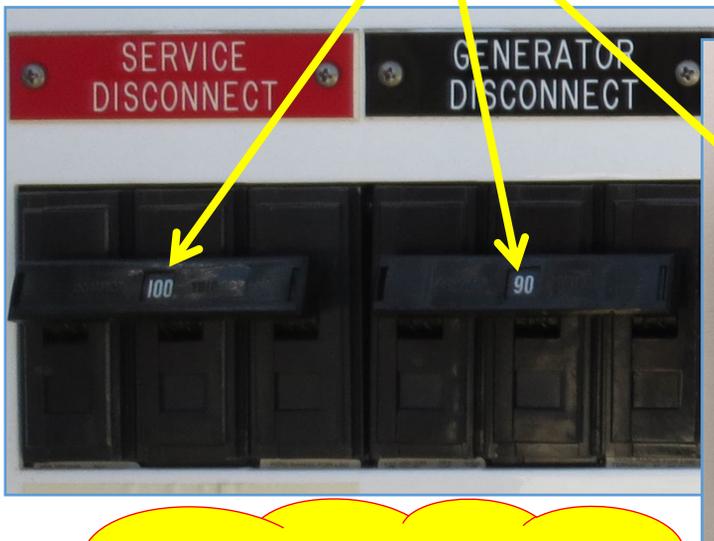


Lockout/Tagout Procedures

At the gen. panel, move the RUN-OFF-AUTO switch to OFF (middle), then press the emergency stop button IN



Move the utility service & generator disconnects DOWN to OFF & install LOTO on BOTH devices



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

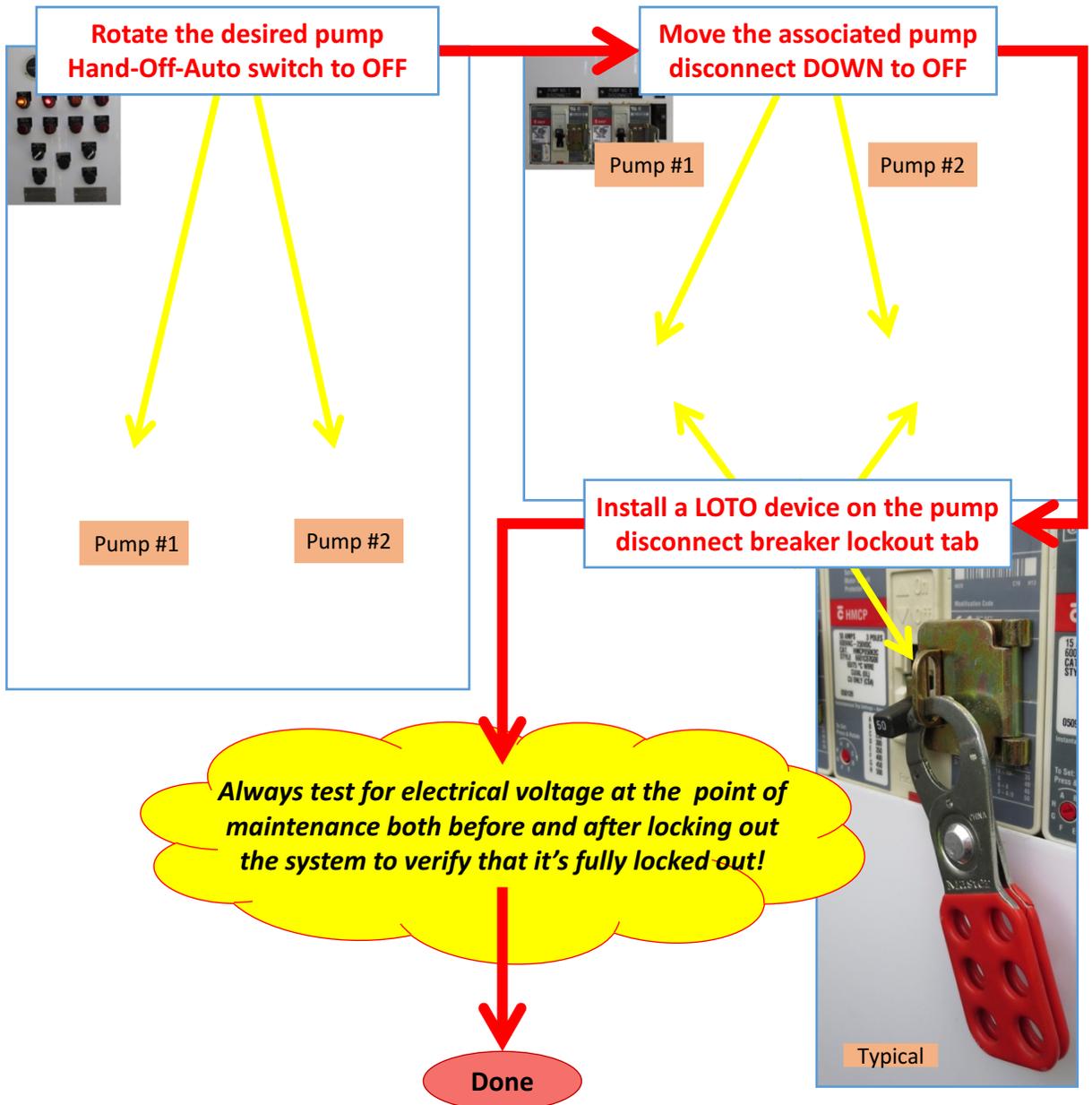
Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

On control panel for desired pump

1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel



Lockout/Tagout Procedures

Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

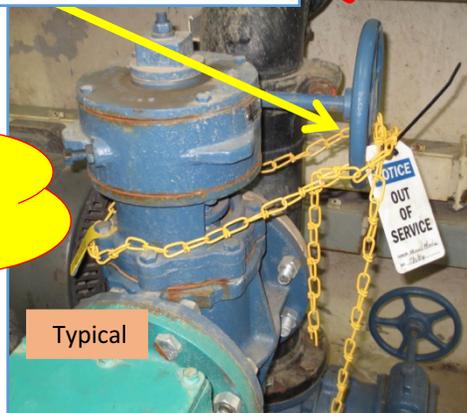
Close the discharge valve for the pump to be accessed



Forcemain drain (valve stays closed)

Install LOTO device and tag onto the closed valve

Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!



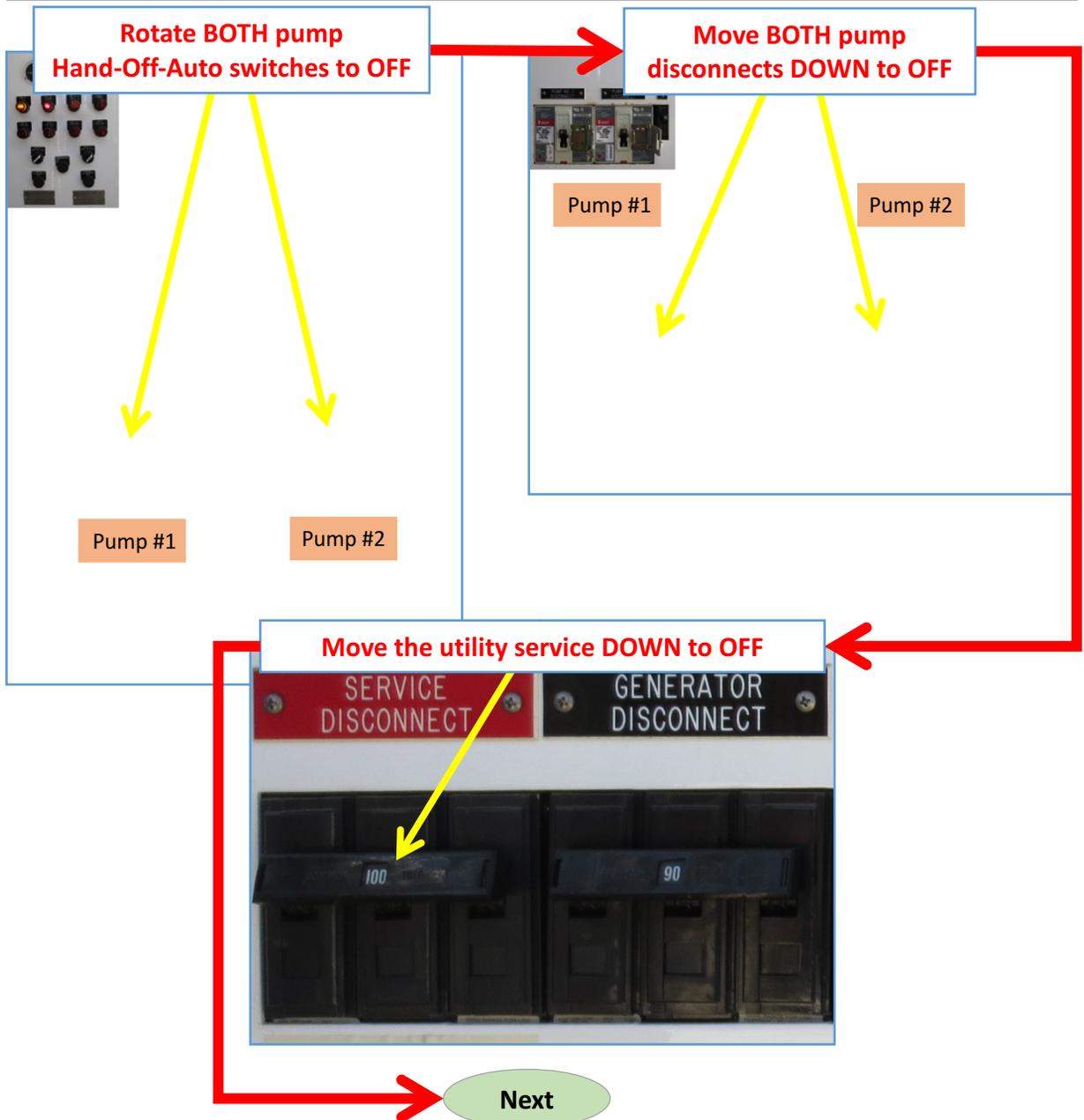
Done

Generator Operation

If utility power is available

- Reduce the load on the station – Shut pumps off
- Shut the service disconnect off – *If the automatic transfer switch is operating properly, the generator should start and power the station.*
- Make sure that the generator output breaker is ON & the generator switch is in AUTO
- Enable the pumps as desired

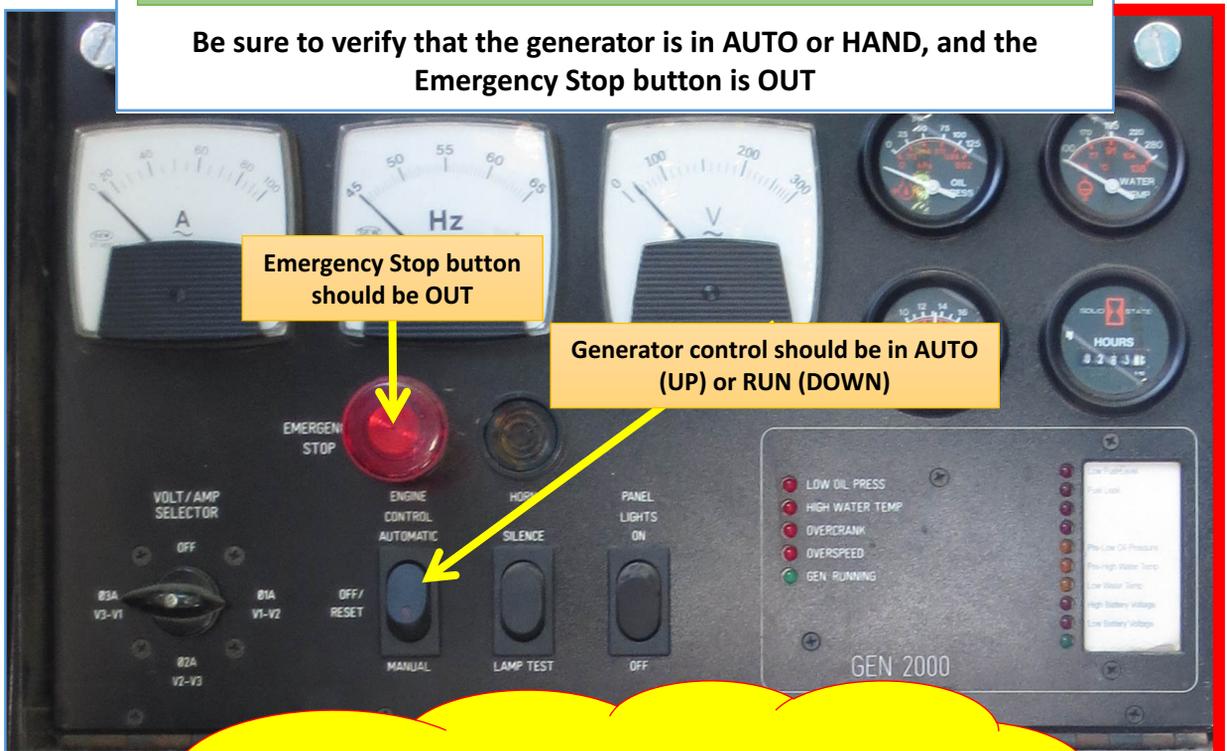
Begin



Generator Operation

At this point, the generator should start and transfer over to generator power and be completely independent of utility grid power.

Be sure to verify that the generator is in AUTO or HAND, and the Emergency Stop button is OUT



Emergency Stop button should be OUT

Generator control should be in AUTO (UP) or RUN (DOWN)

If the generator fails to start, or if the transfer switch fails to switch to the EMERGENCY (generator) load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 32 and follow the section: "Transfer Switch – Manual Override"

AS DESIRED: Enable station systems

Done

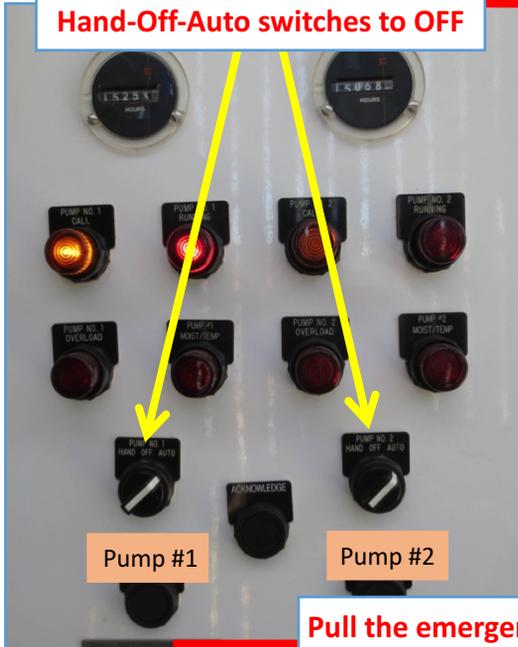
Generator Operation

If utility power is NOT available and/or the generator has not started

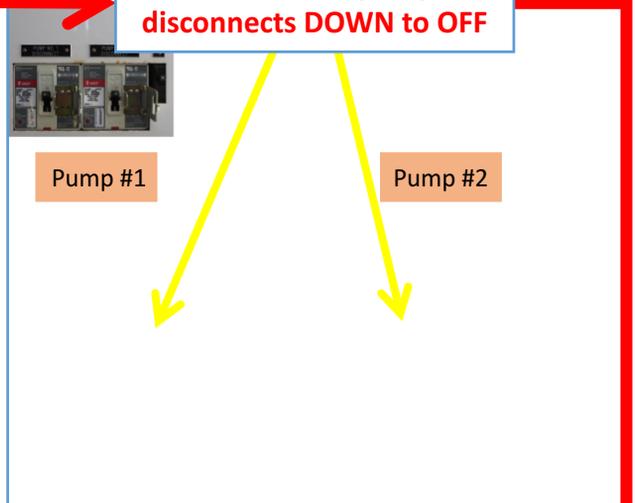
- Reduce the load on the station – Shut pumps off
- Make sure that the generator output breaker is ON & the generator switch is in AUTO
- Enable the pumps as desired

Begin

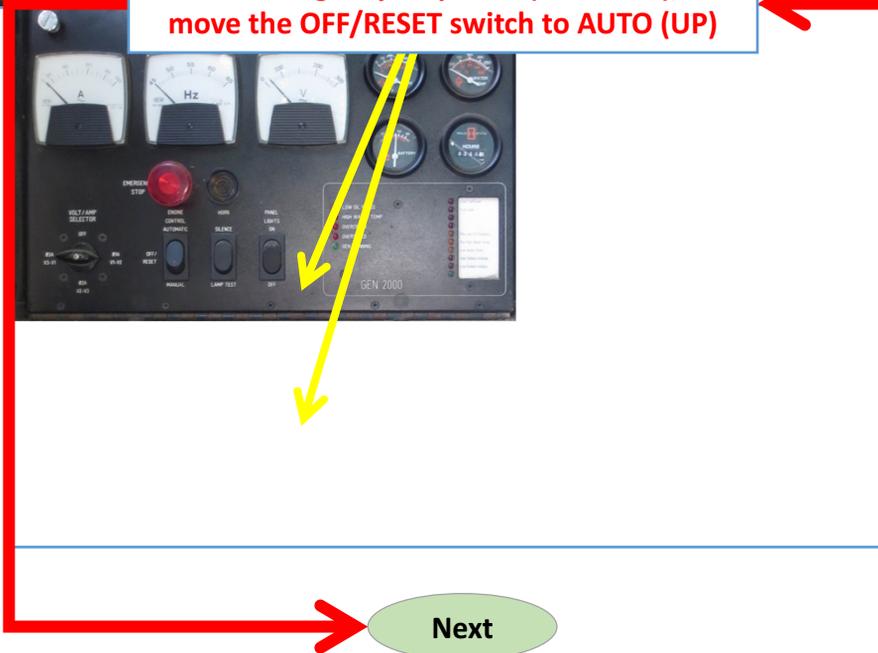
**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



**Pull the emergency stop OUT (if needed), then
move the OFF/RESET switch to AUTO (UP)**



Next

Generator Operation

At this point, the generator should start and transfer over to generator power and be completely independent of utility grid power.

If the generator does not start, move the generator **HAND-OFF-AUTO** control to **MANUAL (DOWN)**



If the transfer switch failed to transfer, move the **RUN-OFF/RESET-AUTO** switch to **OFF/RESET** and then turn to page 32 and follow the section: **"Transfer Switch – Manual Override"**

AS DESIRED: Enable station systems

Done

Generator Operation

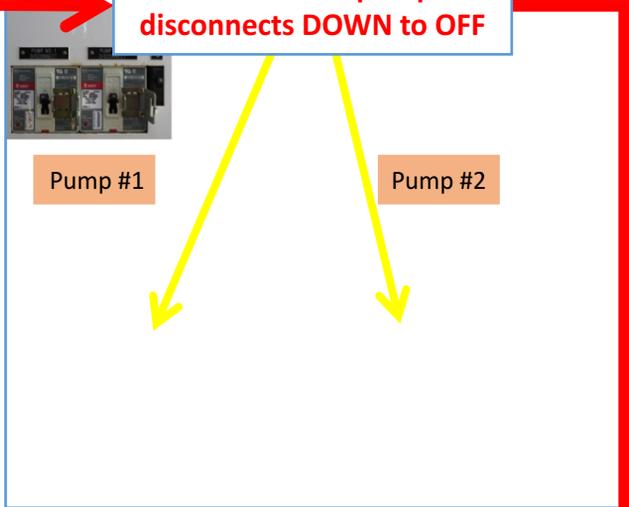
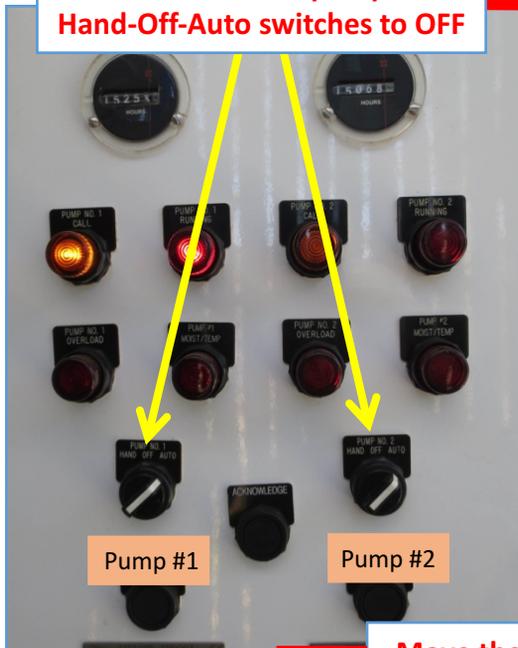
To return to utility power

- Reduce the potential load on the station – Shut the pumps off
- Move the main utility service breaker to ON
- *The transfer switch will sense utility power and transfer the station to the utility and then shut the generator down.*
- Enable the pumps as desired

Begin

Rotate BOTH pump Hand-Off-Auto switches to OFF

Move BOTH pump disconnects DOWN to OFF



Move the utility service UP to ON



Next

Generator Operation

When the transfer switch senses utility power, it will initiate the transfer back to utility. The generator will continue to run until the transfer is complete and the engine cool-down period has elapsed, then it shuts down.

At this point, the station will be running on utility power

If the transfer switch fails to switch back to the UTILITY load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 32 and follow the section: "Transfer Switch – Manual Override"

*AS DESIRED:
Enable station systems*

Done

Generator Operation

THE FOLLOWING PROCEDURE SHOULD ONLY BE PERFORMED BY A QUALIFIED ELECTRICAL WORKER & TRAINED ELECTRICIANS

Transfer Switch – Manual Override

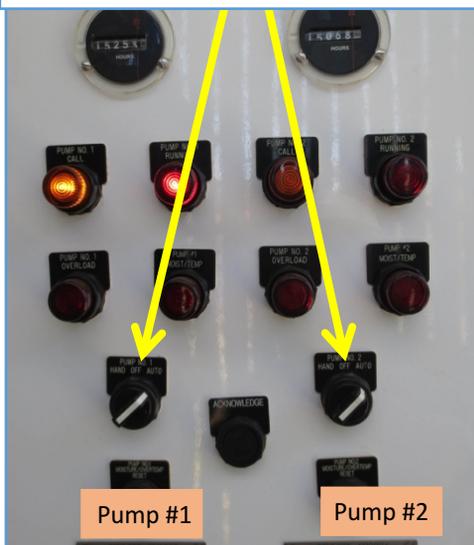
Use extreme caution when working in the transfer switch. Make sure to use all the proper lockout procedures before opening the switch cabinet

Summary: Transfer Switch – Manual Override

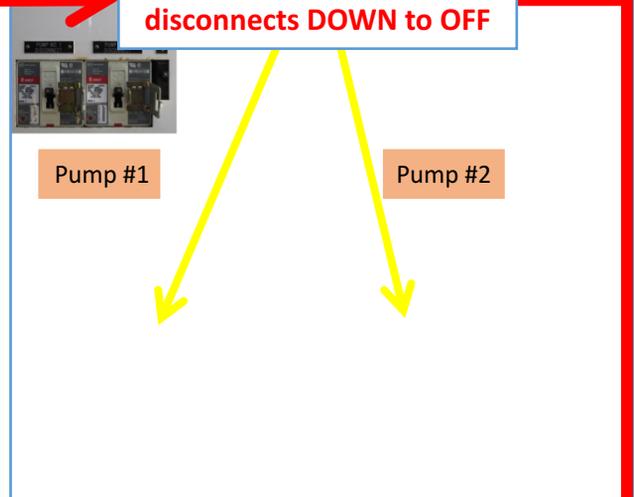
1. Reduce the load from the pump station – shut both pumps off
2. Shut down and disable the generator
3. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
4. Open the transfer switch cabinet & perform a voltage check
5. Manually change the contacts to the desired mode (EMERGENCY or NORMAL)
6. Close the transfer switch cabinet
7. **If transferring to emergency generator power**
 1. Close the generator disconnect (UP to ON)
 2. Move the generator control to RUN
 3. Leave the utility disconnect OPEN (OFF) *to avoid the transfer switch from trying to switch back to utility power*
 4. Enable station systems
8. **If transferring to utility power**
 1. Move the service utility disconnect UP to ON
 2. Enable station systems

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



Next

Generator Operation

At the gen. panel, move the RUN-OFF/Reset-AUTO switch to OFF (middle), then press the emergency stop button IN



Move the utility service & generator disconnects DOWN to OFF & install LOTO on BOTH disconnects



At this point, all electrical power sources have been locked out and work inside the transfer switch can be done

Next

Generator Operation

Open the transfer switch cabinet



Perform a voltage check to verify that power is fully shut down

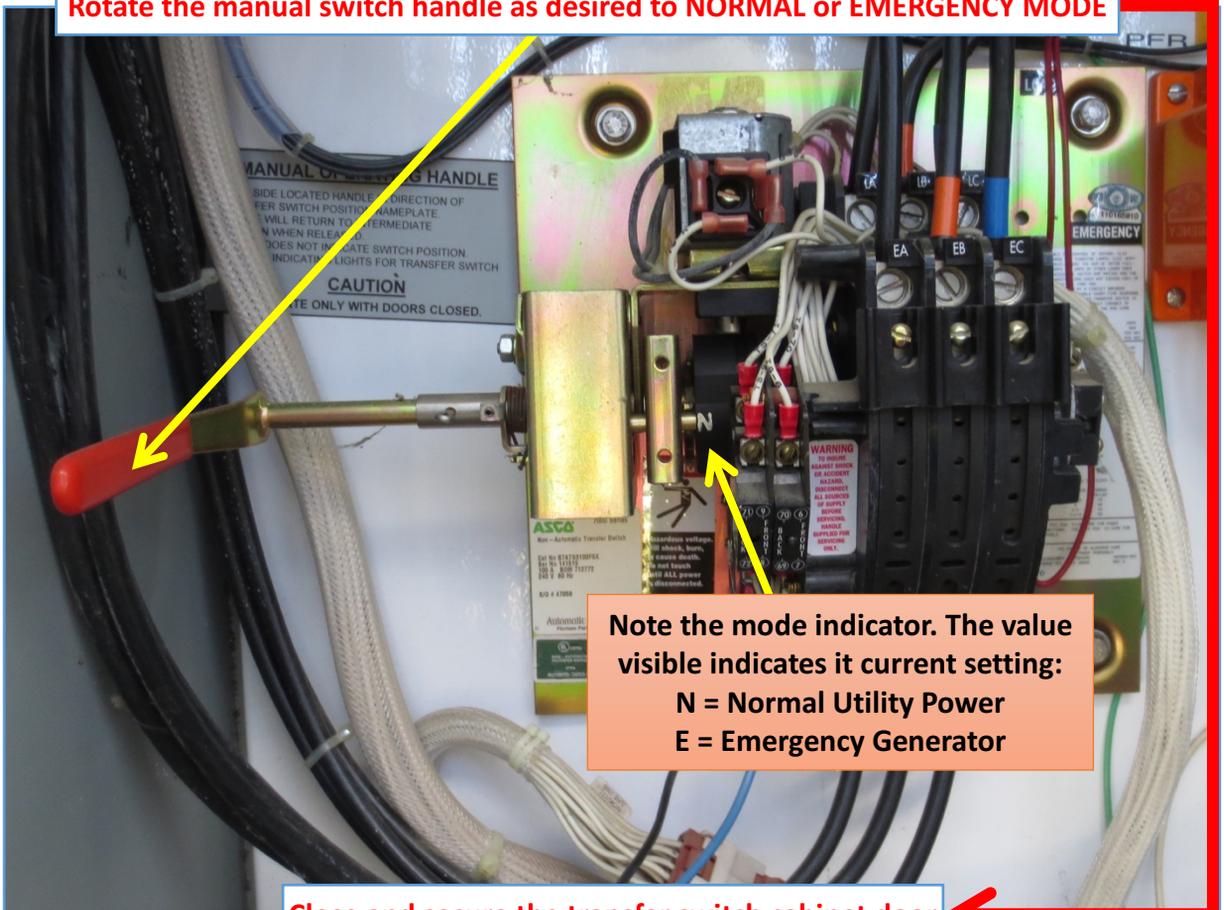


This is the manual transfer switch override handle & status indicator
Close up on next page

Next

Generator Operation

Rotate the manual switch handle as desired to **NORMAL** or **EMERGENCY MODE**



Note the mode indicator. The value visible indicates its current setting:
N = Normal Utility Power
E = Emergency Generator

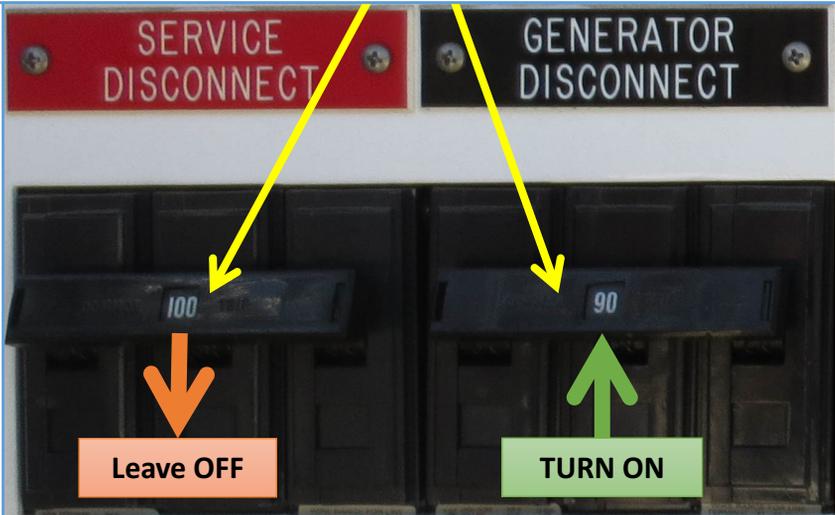
Close and secure the transfer switch cabinet door

Next

Generator Operation

If transferring TO emergency generator power

Move the generator disconnect UP to ON
Leave the utility disconnect OFF to avoid the switch from trying to switch to utility



At the generator panel pull the emergency stop button OUT; then move the RUN- OFF/Reset-AUTO switch to RUN (UP)
The generator should start up at this point



At this point, the station should be running on generator power and completely independent of utility power

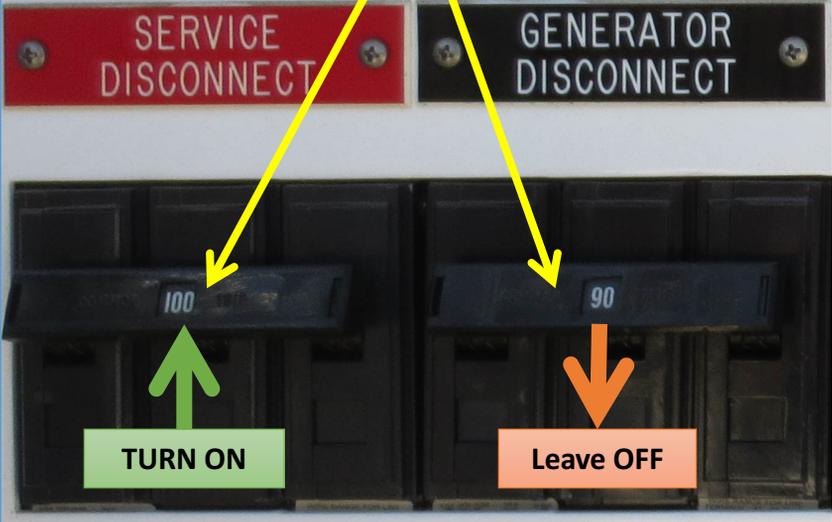
AS DESIRED:
Enable station systems

Done

Generator Operation

If transferring TO utility power

Move the utility disconnect UP to ON.
The generator disconnect may be turned on or left off as desired



At the generator panel, move the RUN– OFF/Reset–AUTO switch to OFF (middle)
This prevents the generator from starting



At this point, the station should be running on UTILITY power

AS DESIRED:
Enable station systems

Done

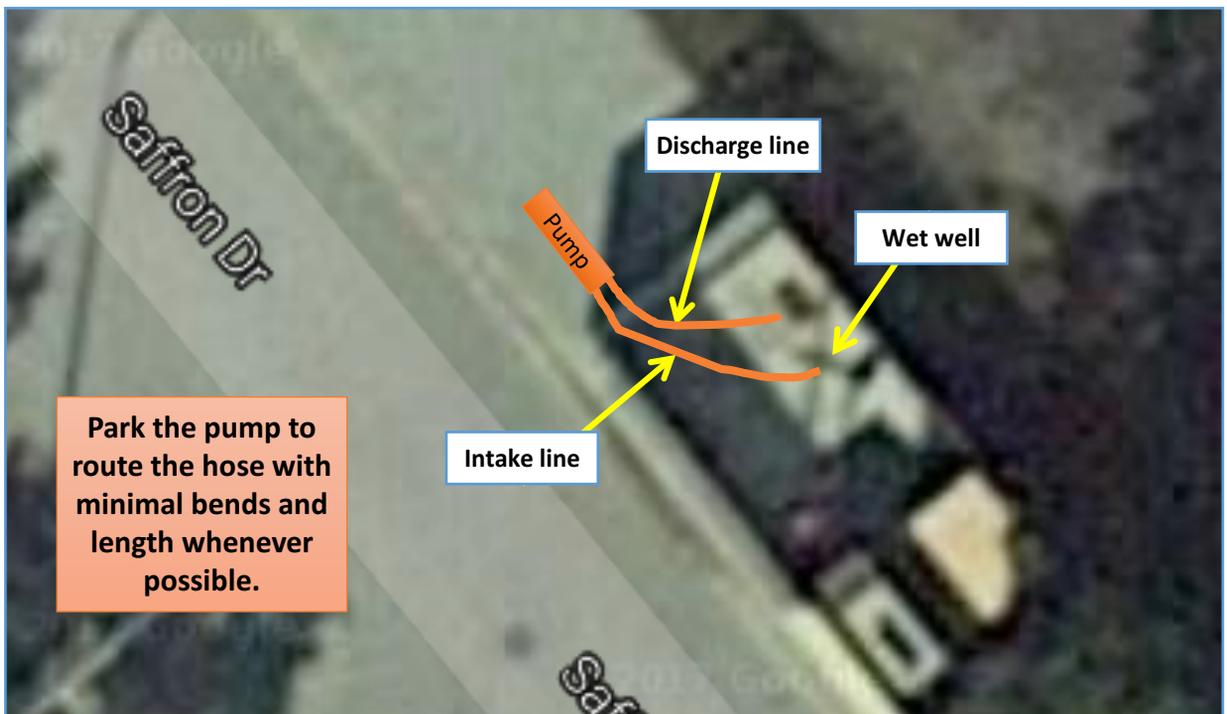
Bypass to Force Main

Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the valves needed to return to normal operations

Begin Procedure



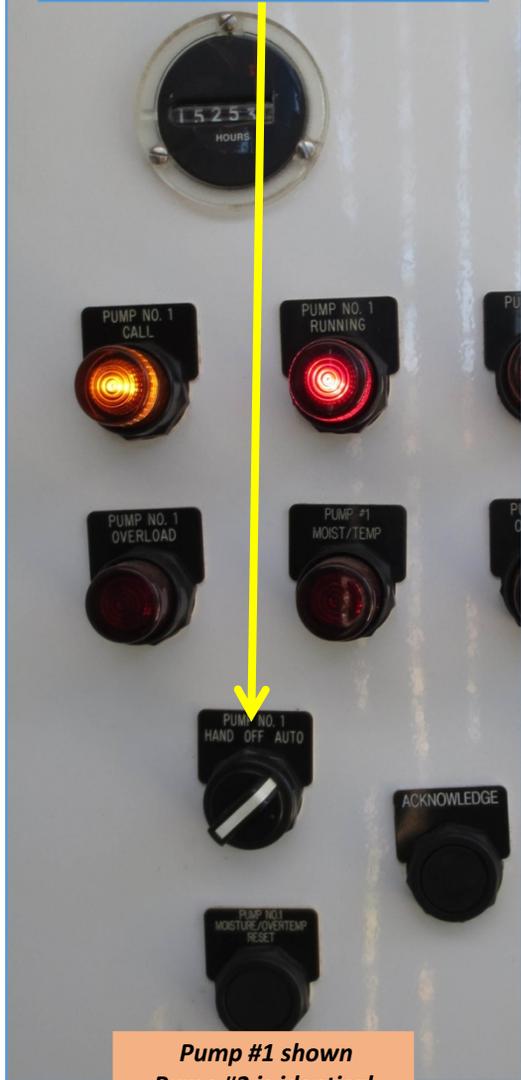
Next

Bypass to Force Main

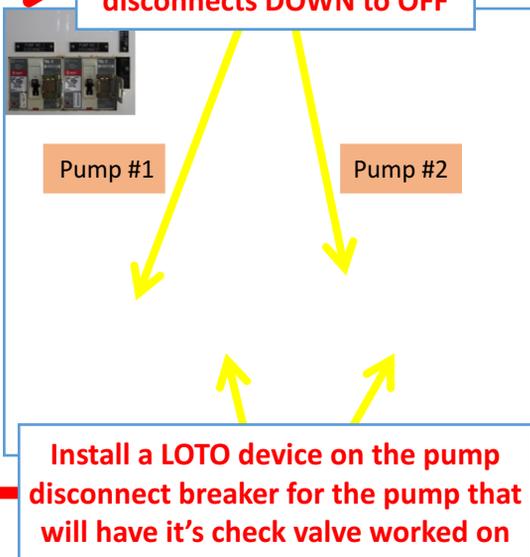
Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

Rotate BOTH pump Hand-Off-Auto switches to OFF

Move BOTH pump disconnects DOWN to OFF

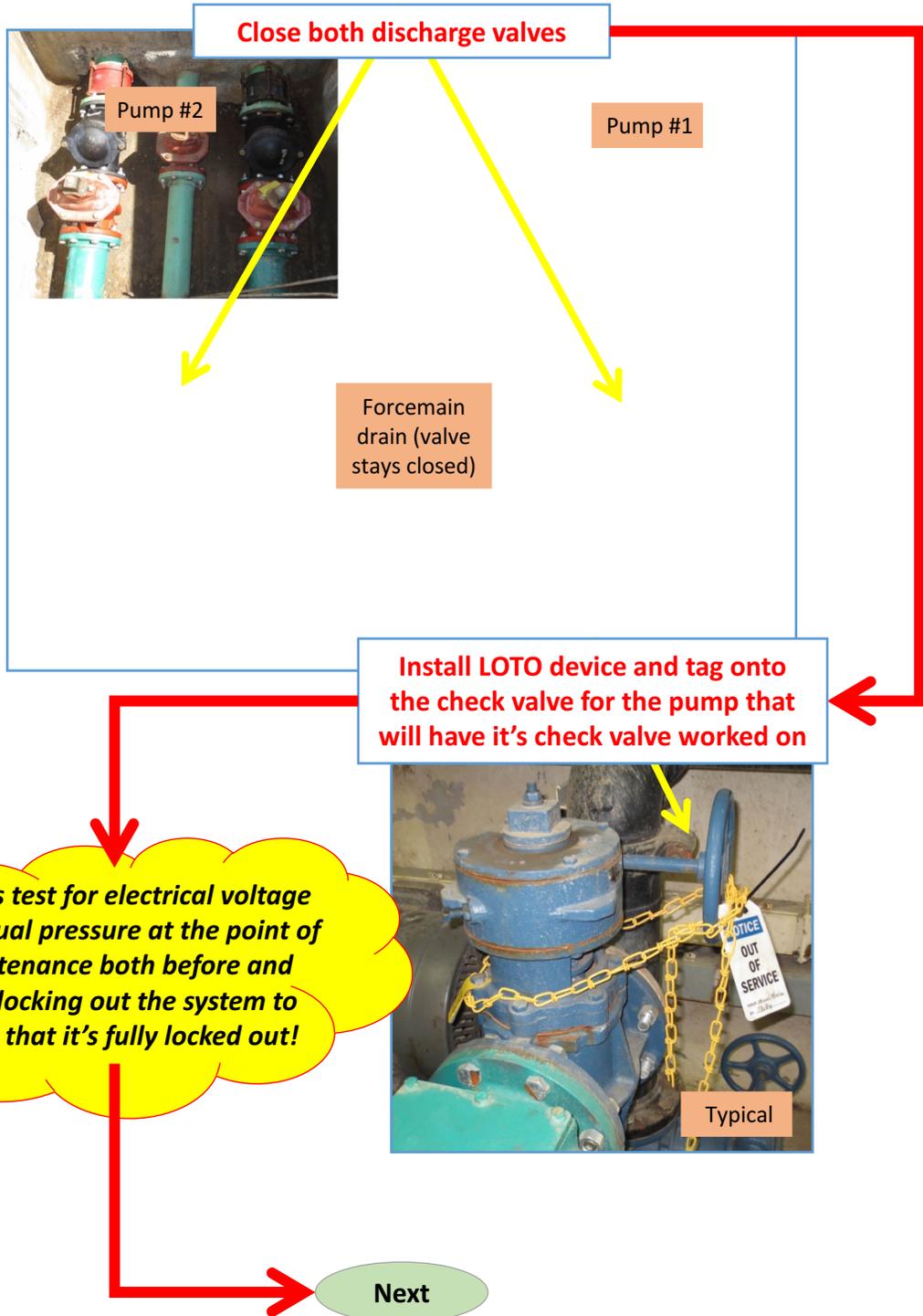


**Pump #1 shown
Pump #2 is identical**



Next

Bypass to Force Main



Bypass to Force Main

Install a flange/coupler onto the bypass valve



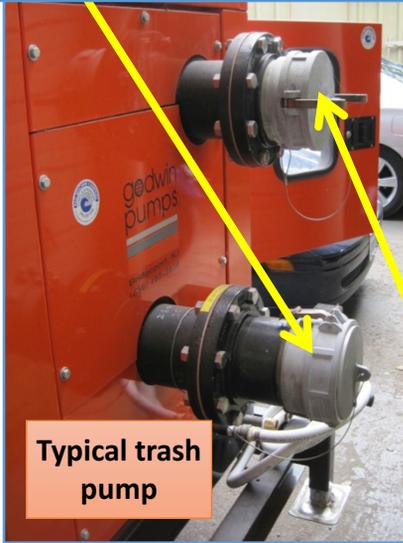
Typical check valve-to-bypass port coupler/adapter



Next

Bypass to Force Main

Connect a suction hose with strainer-end to the intake port

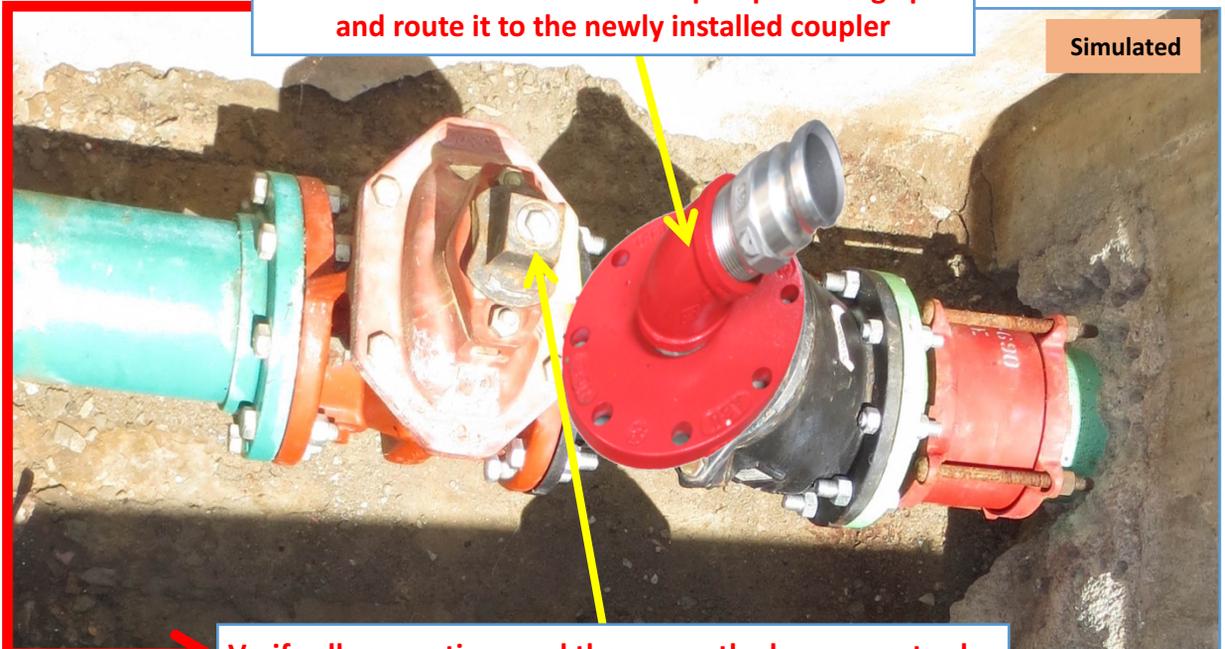


Lower the suction hose into the wet well



It's good practice to use a strainer end on the suction hose whenever possible

Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc. , 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum , 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro , 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

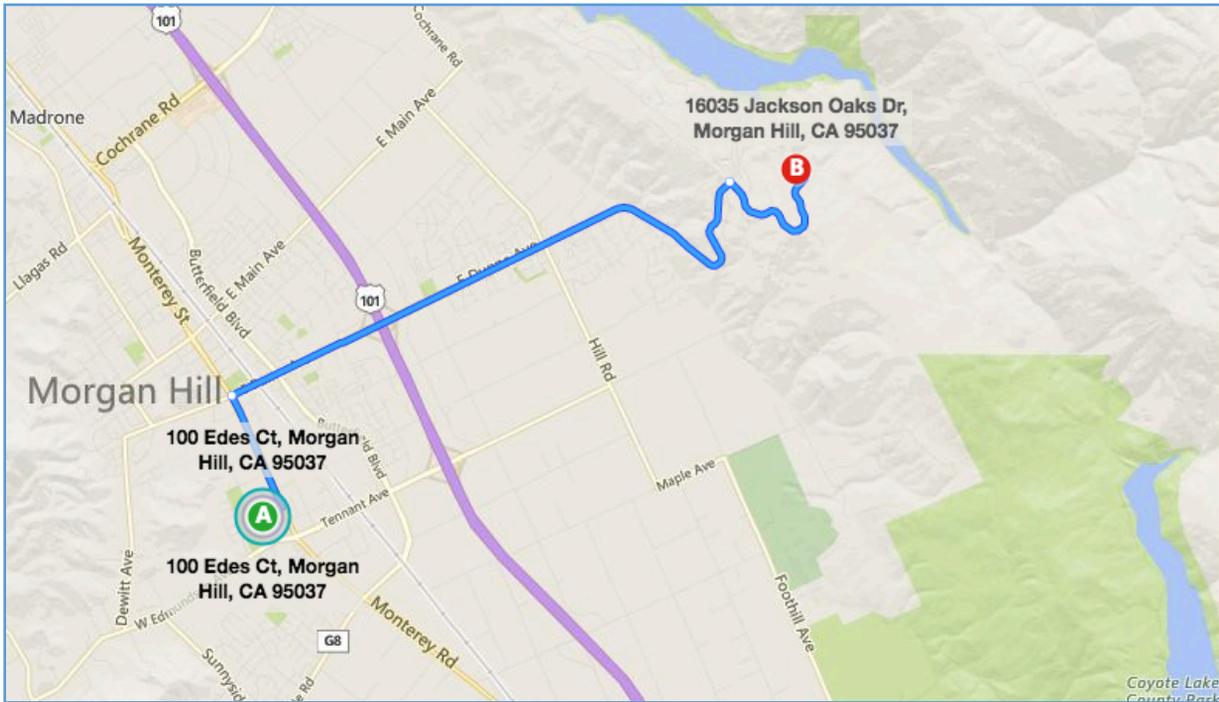


Pump Station PS-J
16035 Jackson Oaks Dr

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Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
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Pump Station Technical Information

Name	PS-J – 16035 Jackson Oaks Pump Station
Address	16035 Jackson Oaks, Morgan Hill, CA 95037
Lat., Long.	37.14651, -121.58681
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Turn Right on E. Dunne Ave Turn Right onto Jackson Oaks Dr. Turn Right into the black asphalt driveway just a few feet past the driveway for 16045 Jackson Oaks Dr. Proceed past the house on the driveway and down the hill to the station <p style="background-color: yellow; border: 2px solid red; padding: 5px;">ALERT! Access is tight. Large vehicles & trailers will have trouble getting into/out of the pump station</p>



Pump Station Technical Information

Station Information

Wet well dimensions & capacity	Tank 1: 6' diameter x 15' deep; 3,173 gallons Tank 2: 4' diameter x 10' deep; 940 gallons Tank 3: 4' diameter x 8' deep; 752 gallons Total Capacity: 4,865 gallons
Est. hold time (dry weather)	8 hours
Low point (likely overflow point)	Manhole in the road by the station Approx. GPS: 37.146514, -121.586877
Upstream pump station(s)	Gravity Only
Downstream pump station	WWTP
Forcemain Data	4"x 286'
Discharge location	37.146539, -121.587811

Pump Capacities

Pump	Motor & Pump	Capacity
#1	Flygt 3127/487, 10hp, 240v 3-phase	175 gpm
#2	Flygt 3127/487, 10hp, 240v 3-phase	175 gpm

Station Power

Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038045
	PG&E Meter #	1009447388
	PG&E Outage Block	50
	Priority	Sewer pump station
Backup Generator	The station is not equipped with a permanently installed backup generator, however it is equipped with a manual transfer switch and a quick connect for a portable generator	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port. However the station may be bypassed by installing an adapter onto one of the check valves or by running a hose to the discharge manhole.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

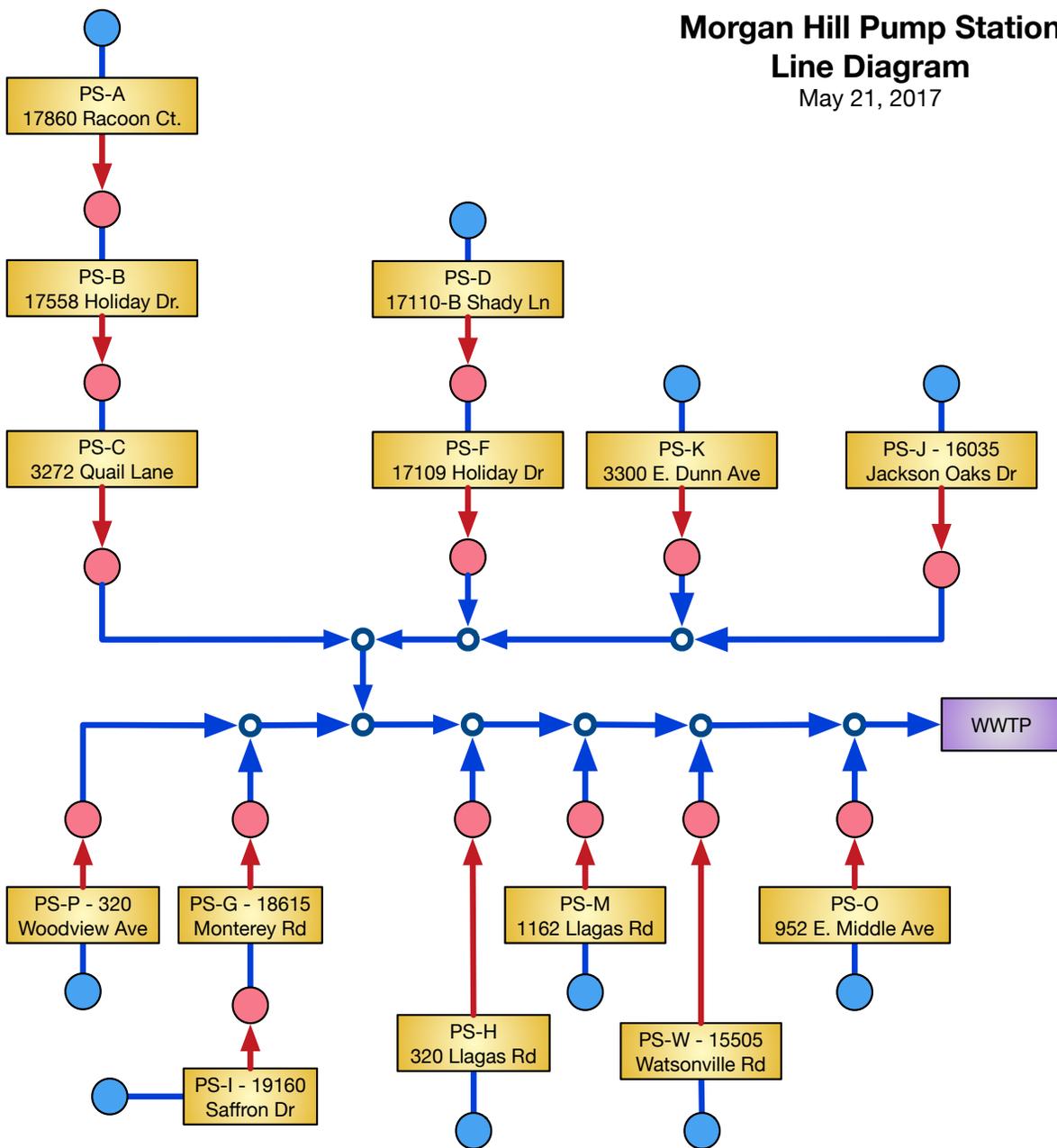
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

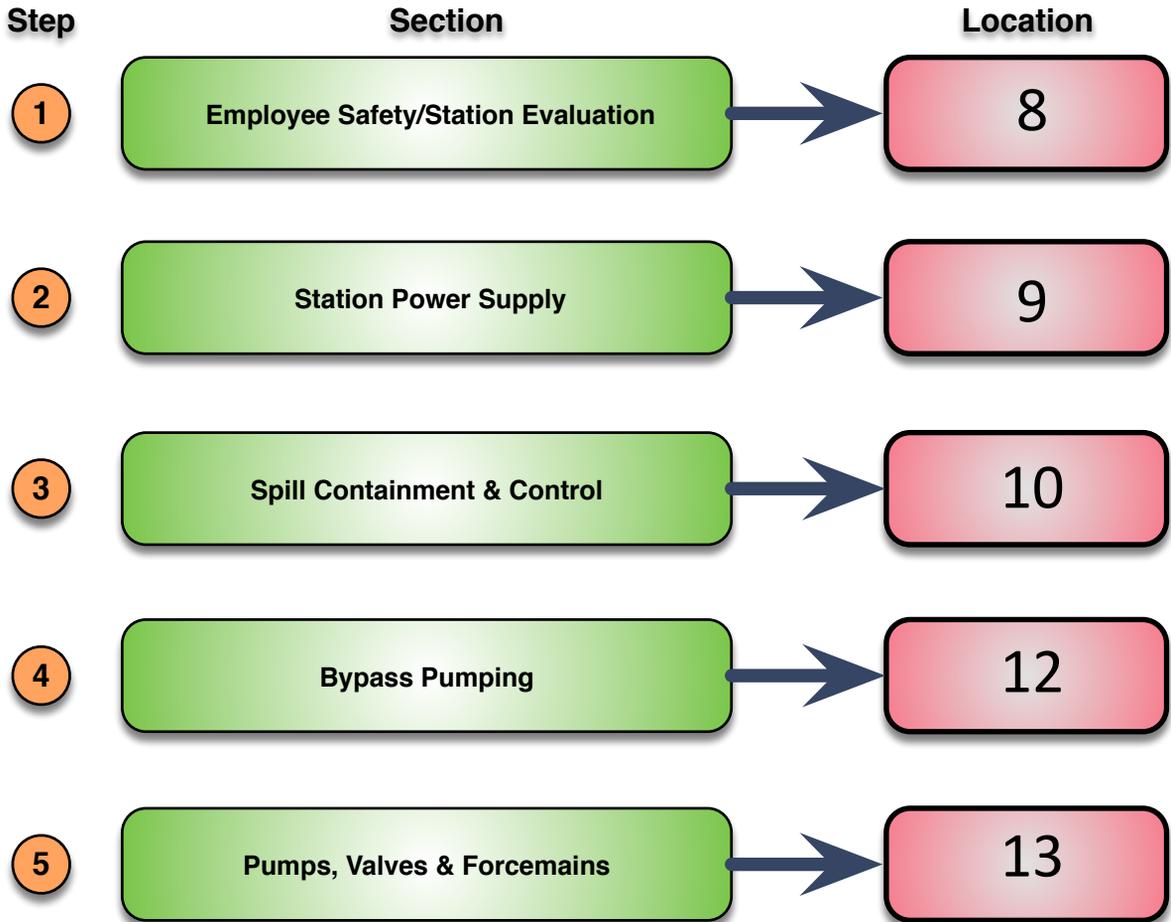
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
● Gravity Feed Only	→ Force main & flow direction
● Force Main Discharge	→ Gravity line & flow direction
◆ Force Main Junction	PS Morgan Hill managed PS
○ Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide **Decision Tree Index**

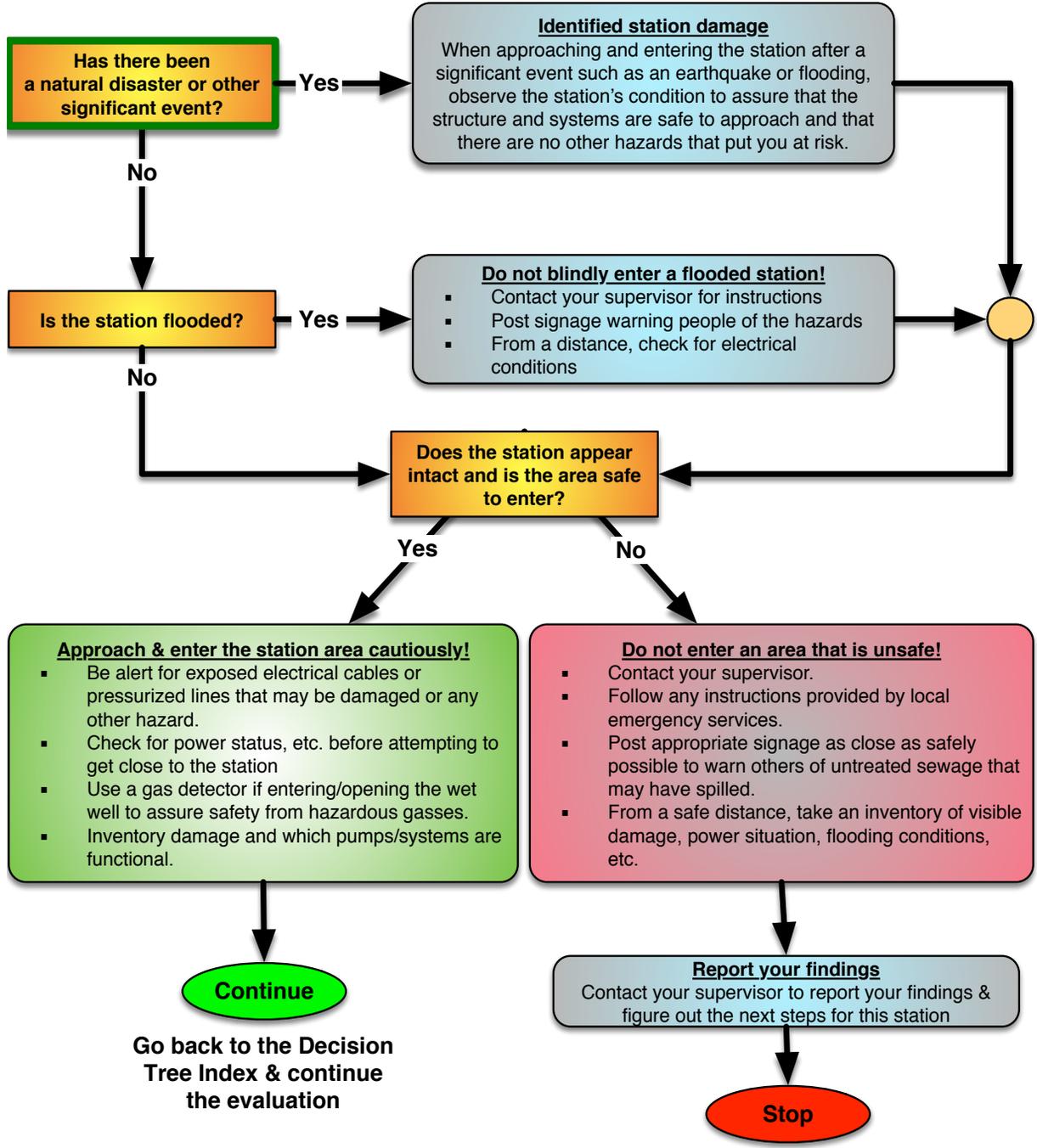


LEGEND

<p> Initial Question</p> <p> Page-To-Page Link</p> <p> Sequence Merge (Watch arrows for flow direction)</p>	<p> Decision Point</p> <p> Task/Direction Item</p>
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Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

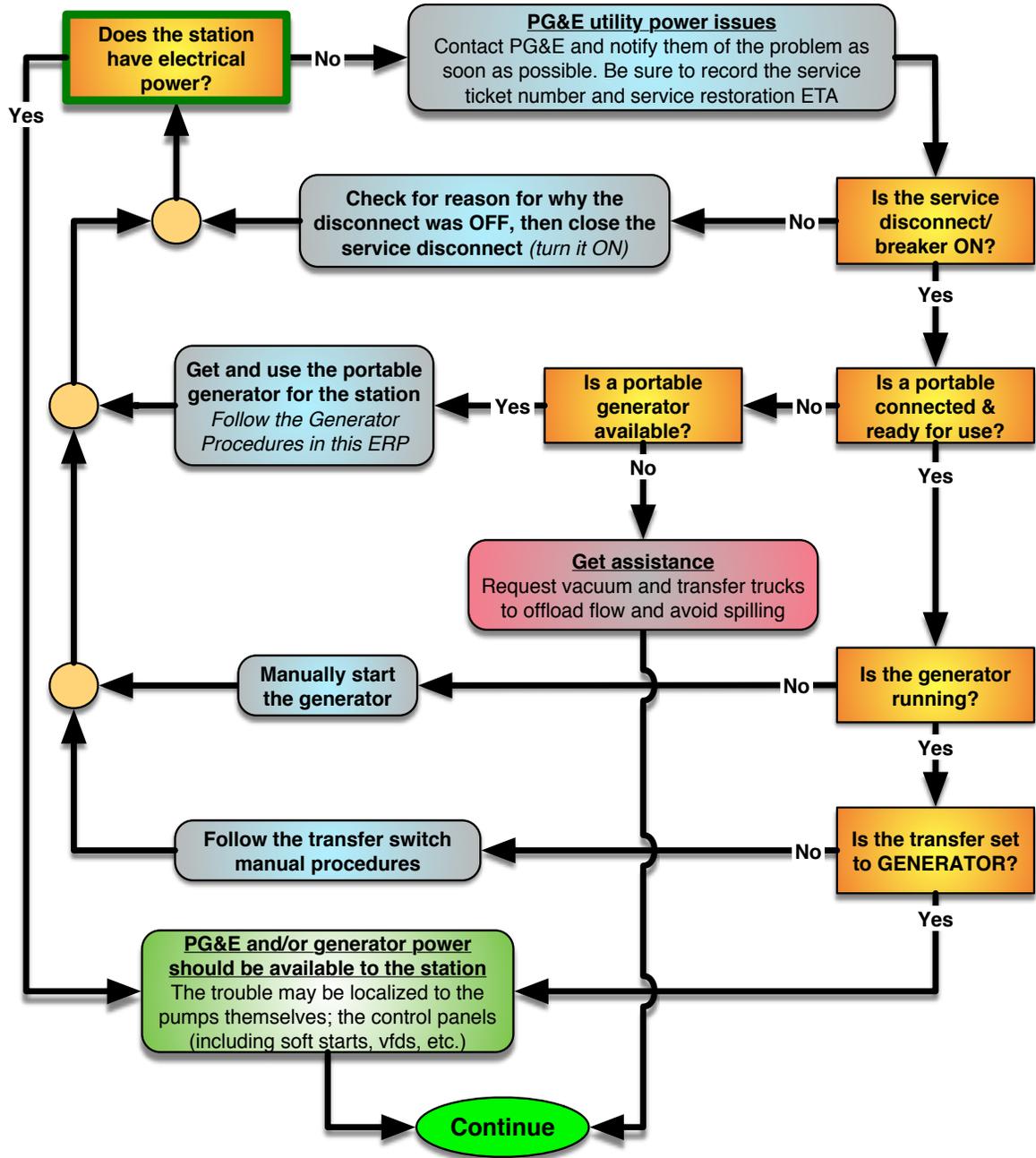


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply



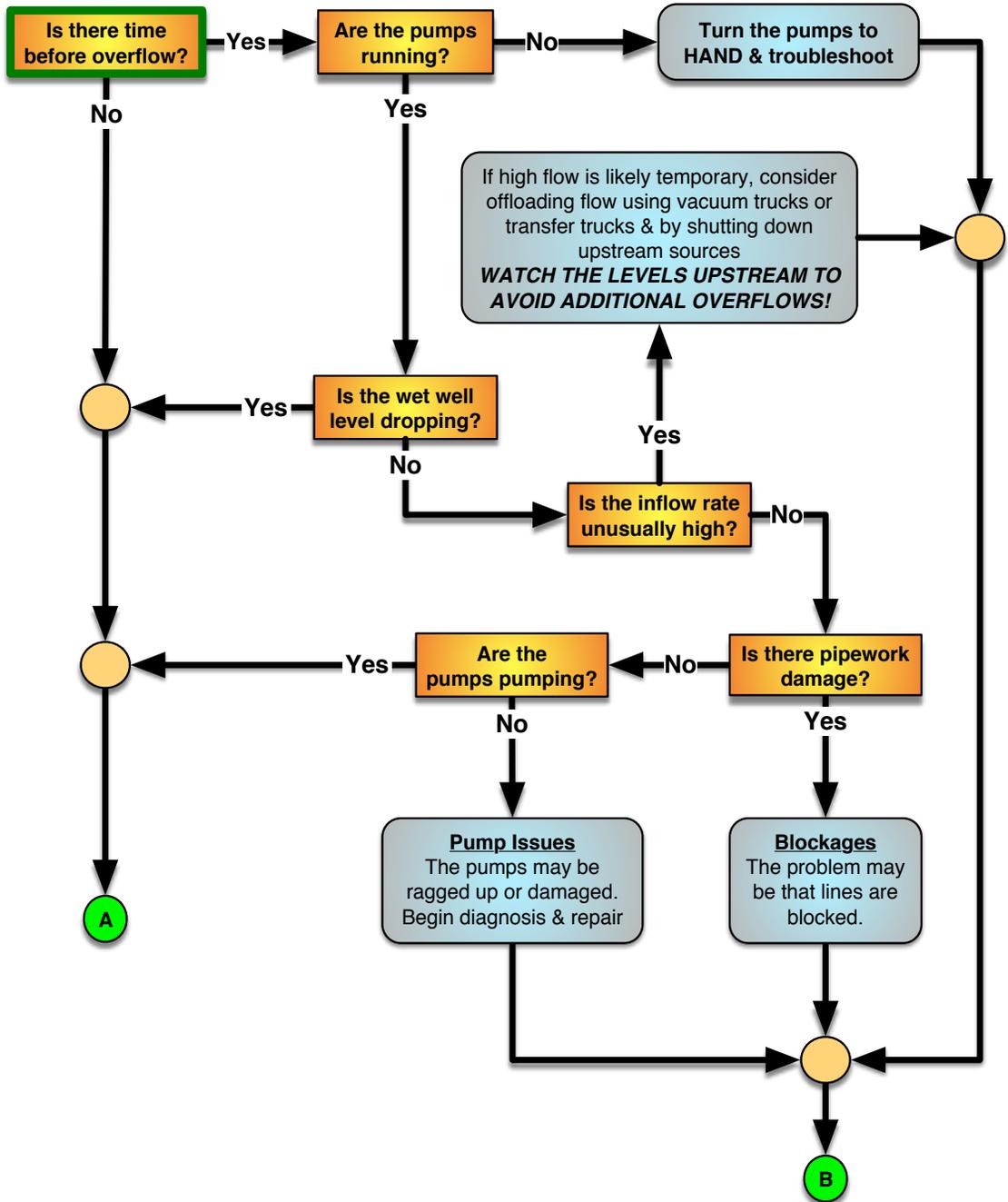
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control



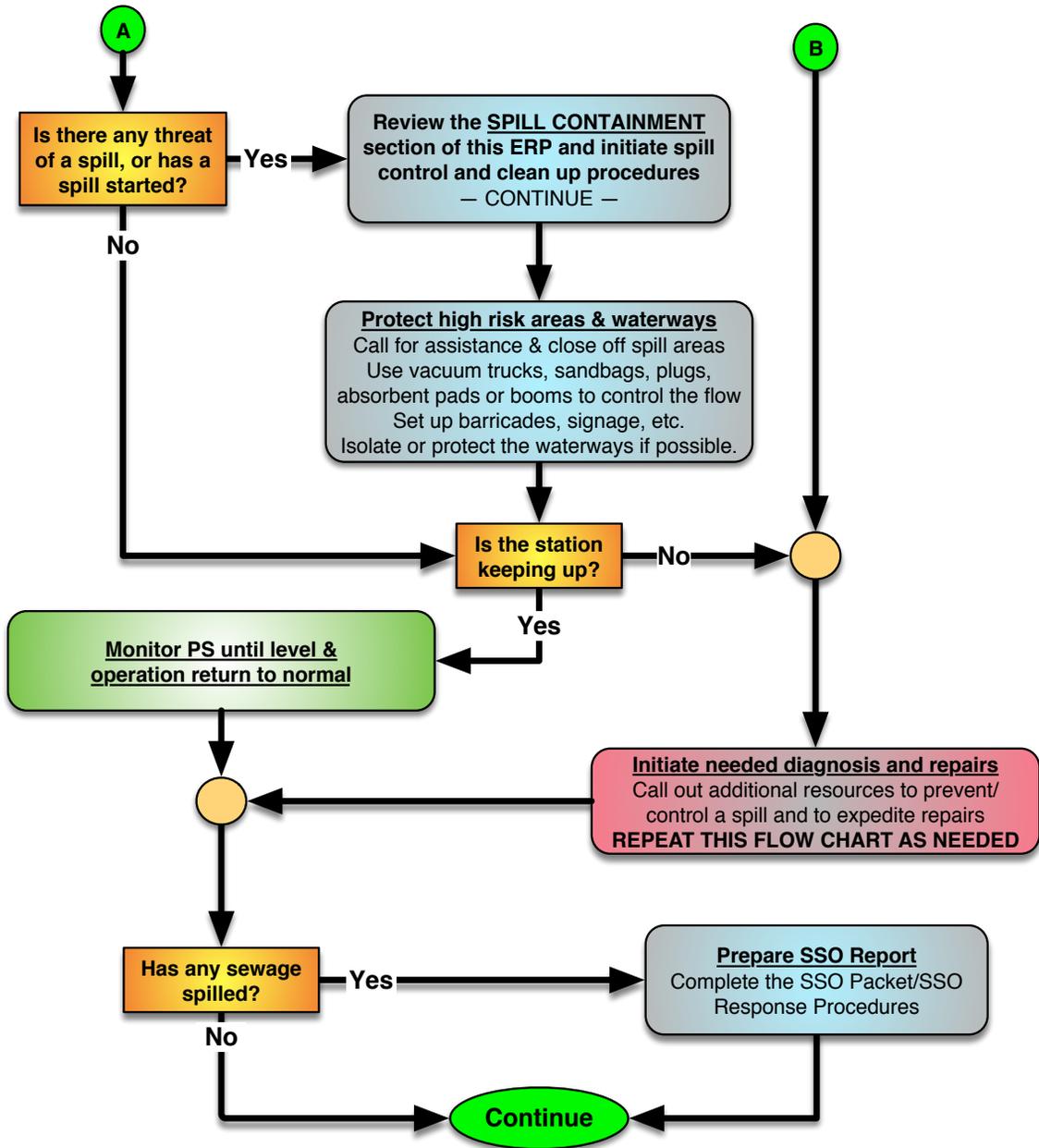
LEGEND ? Initial Question X Page-To-Page ○ Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3

Pump Station Emergency Response Guide

Spill Containment & Control - *Continued*



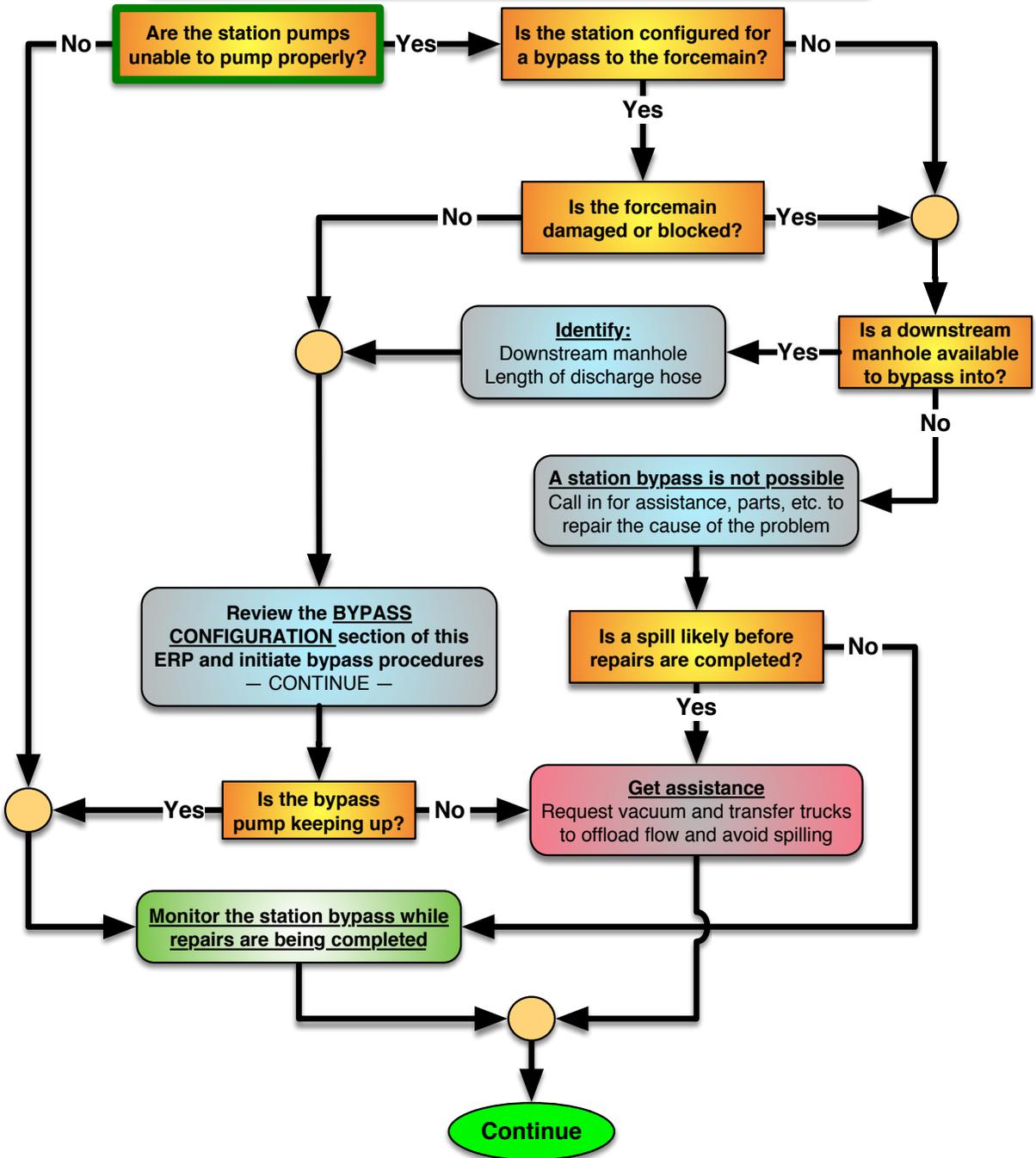
Go back to the Decision Tree Index & continue the evaluation

LEGEND

 Initial Question	 Page-To-Page	 Sequence Merge	 Decision Point	 Task/Direction Item
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Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



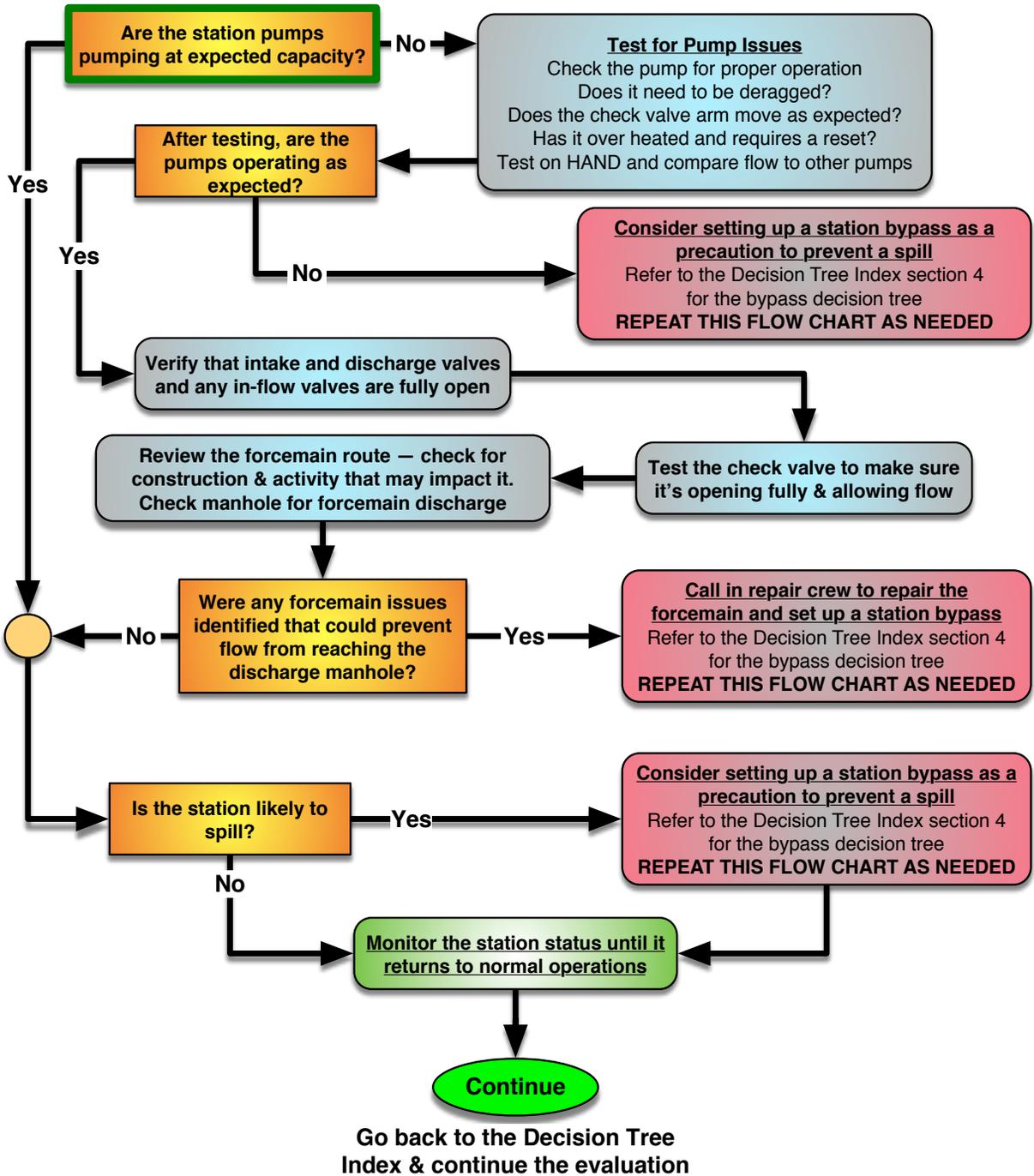
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5 Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Spill Notification Procedures

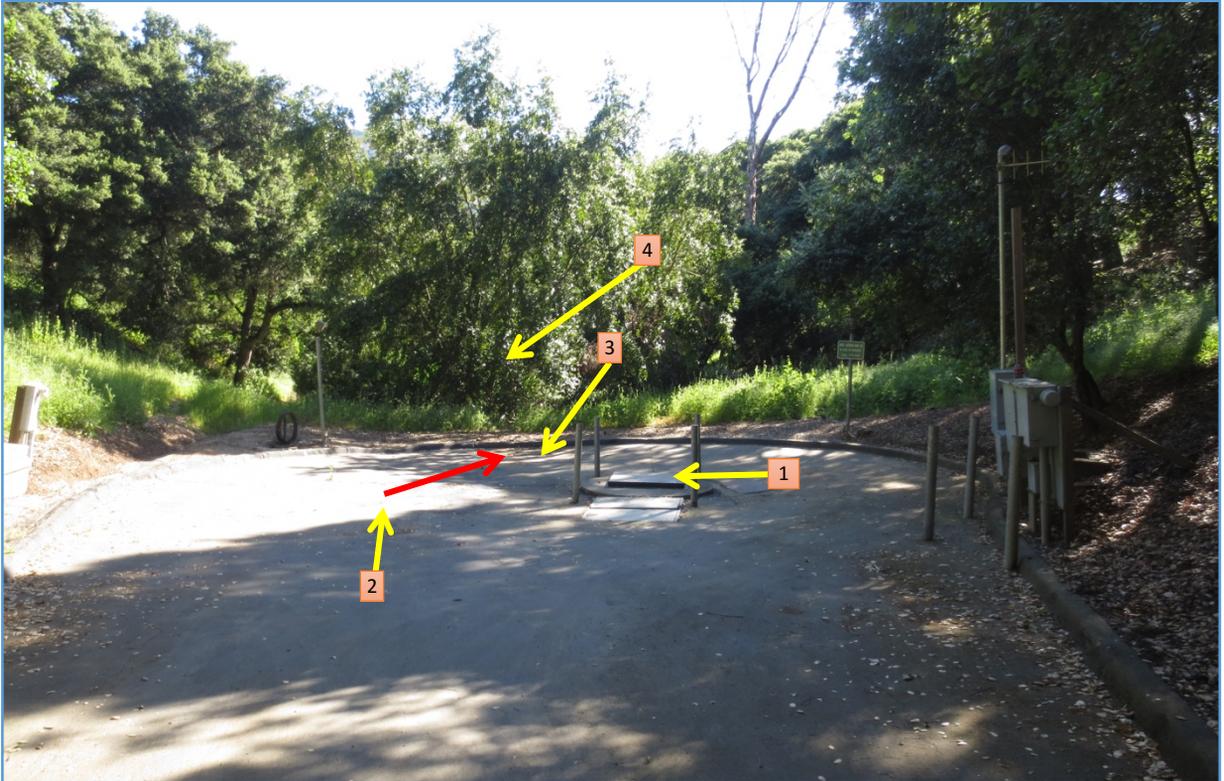
Pump Station J is located in the Jurisdiction of the
San Francisco Bay Regional Water Control Board (#2)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

See the Contact Information Section for contact information
Page 40

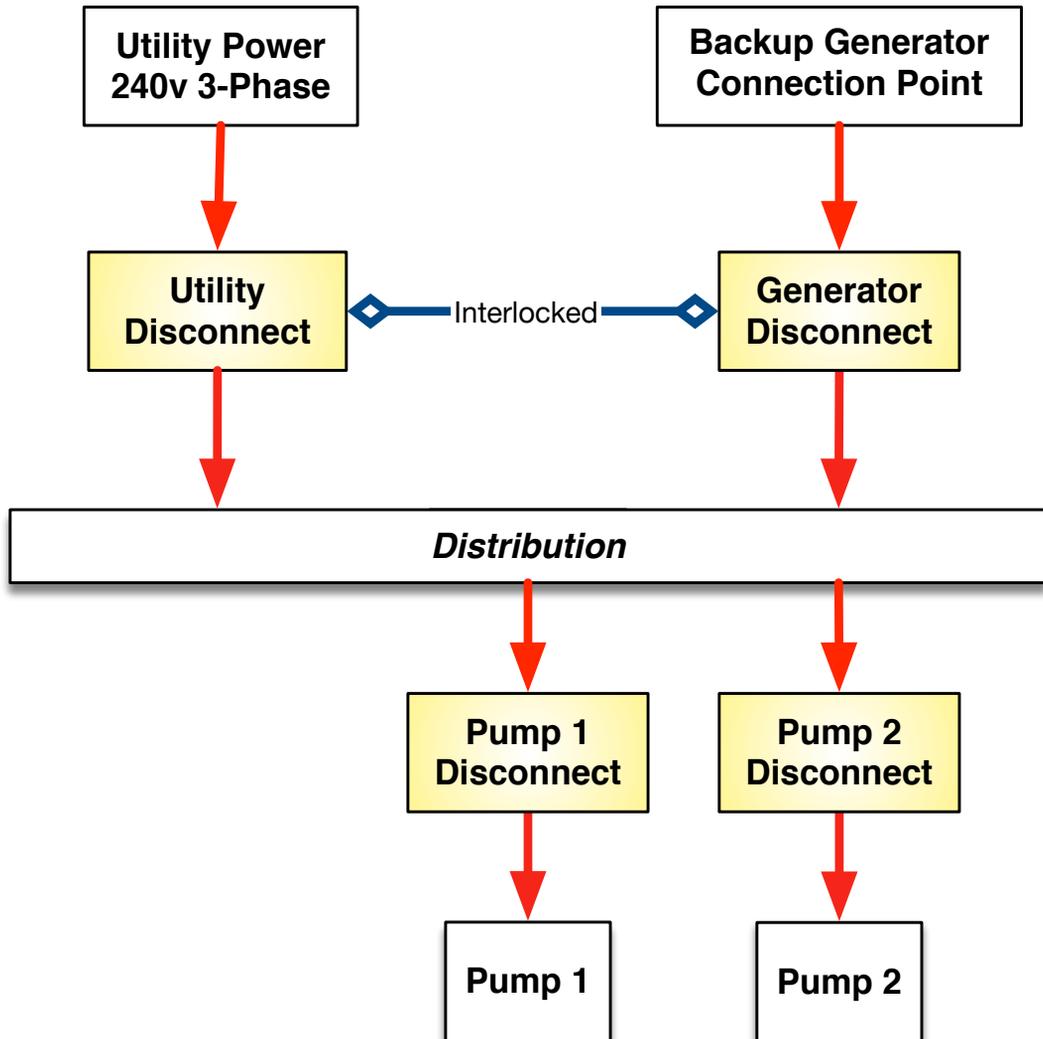
Spill Containment



Potential SSO Impact on State Water

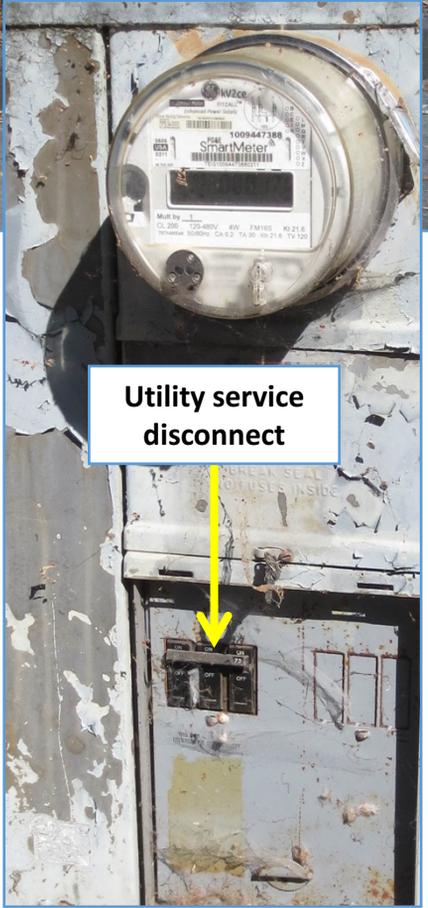
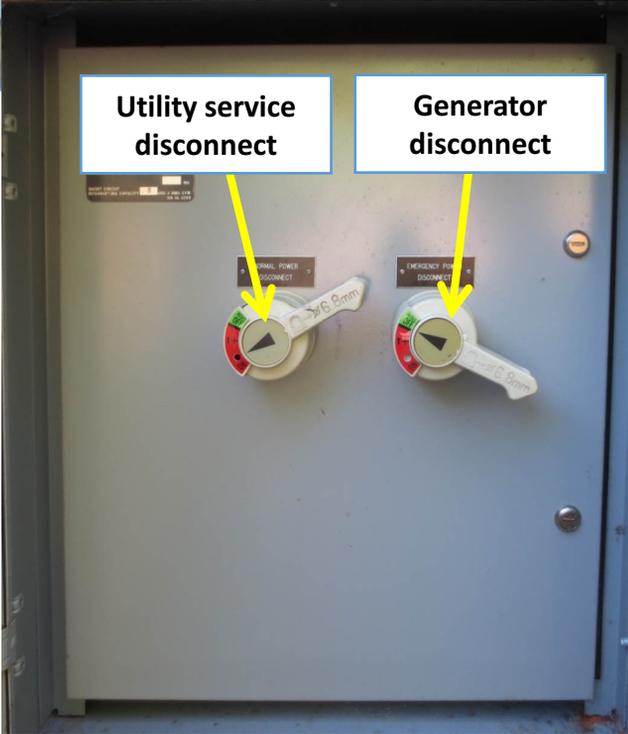
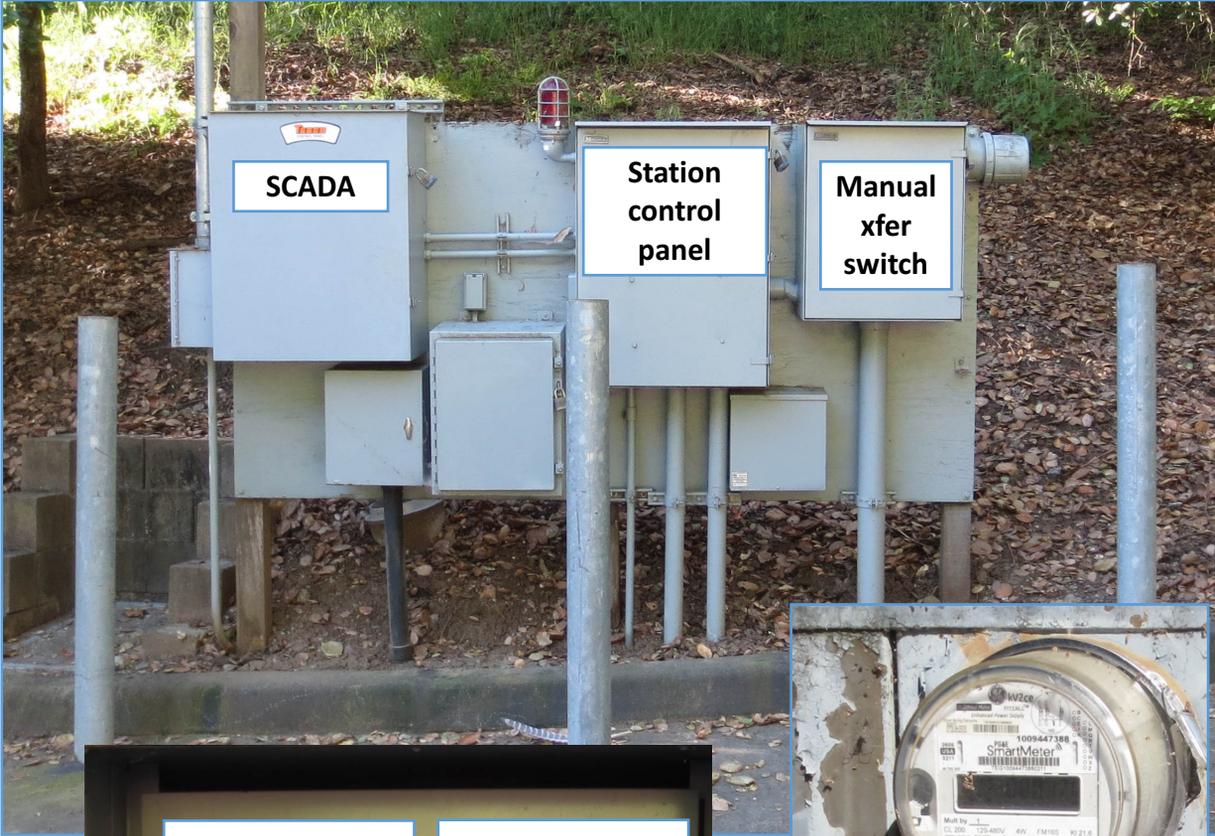
	Type	Position from low point	Containment
1	Wet well	~10' W	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low Manhole	-	
3	Storm drain inlet	~20' S	
4	Hillside	~25' S	
5	<i>Expected flow direction from system low point</i>		

Pump Station Power Map



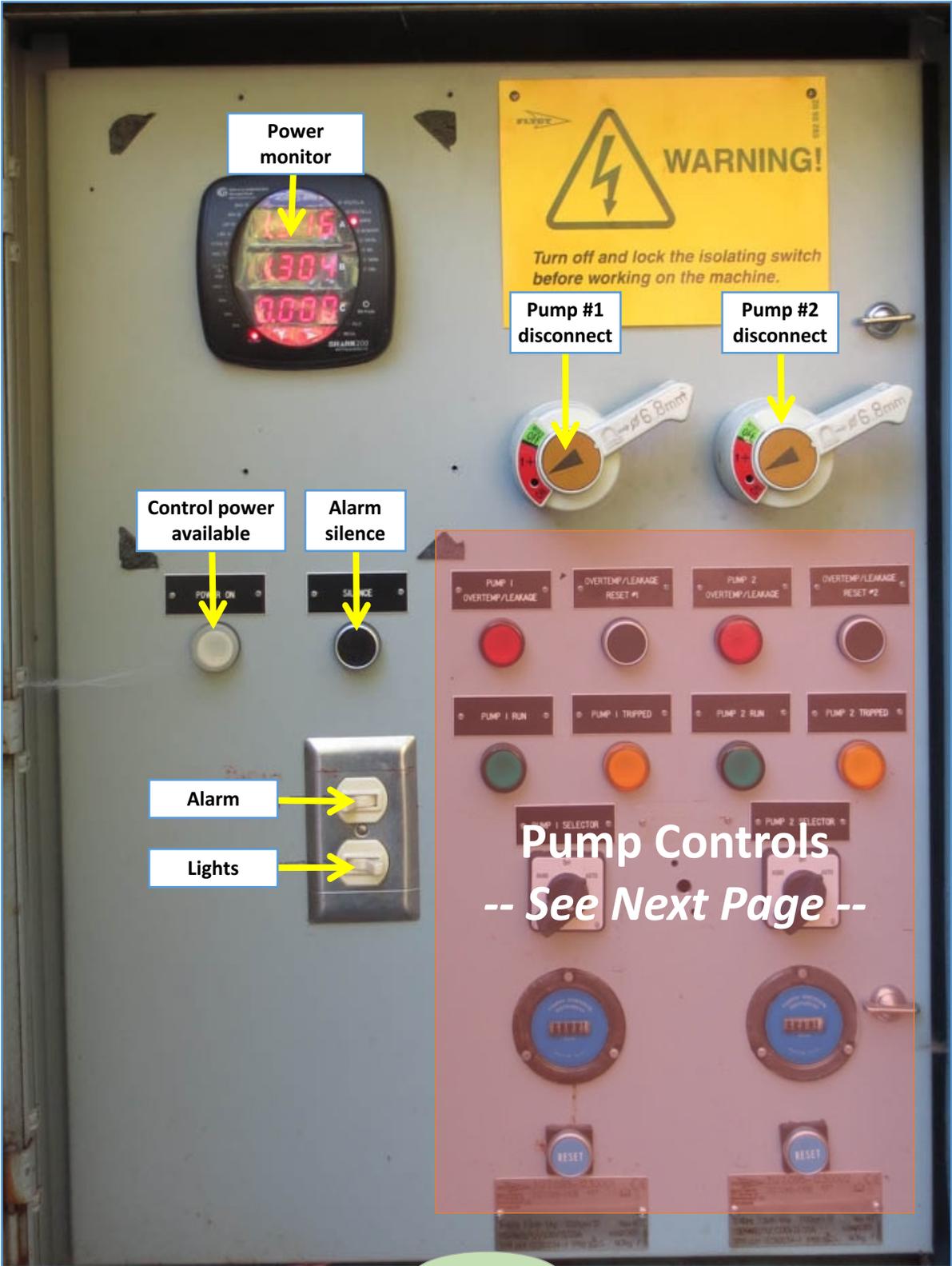
Done

Pump Station Control System



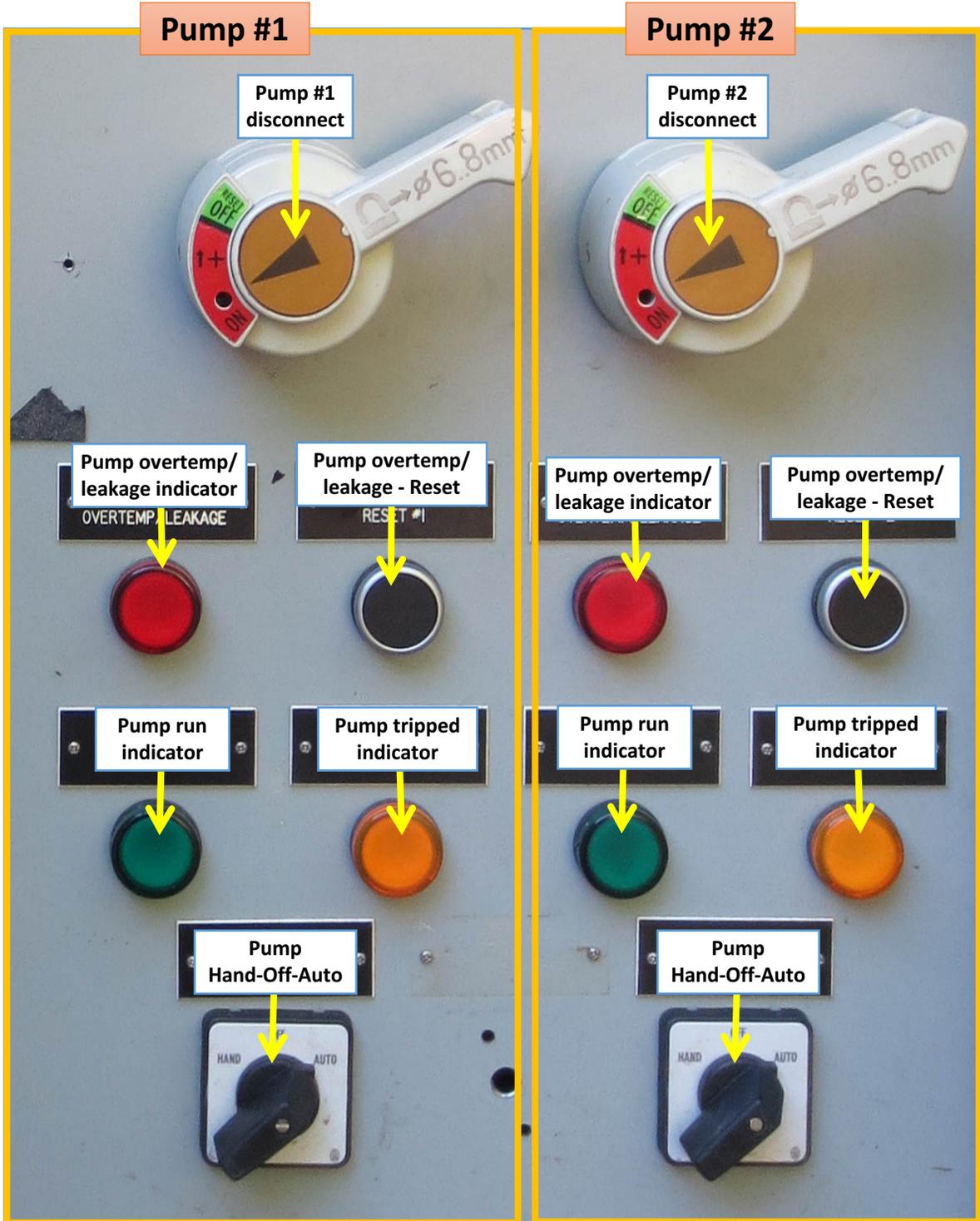
Next

Pump Station Control System



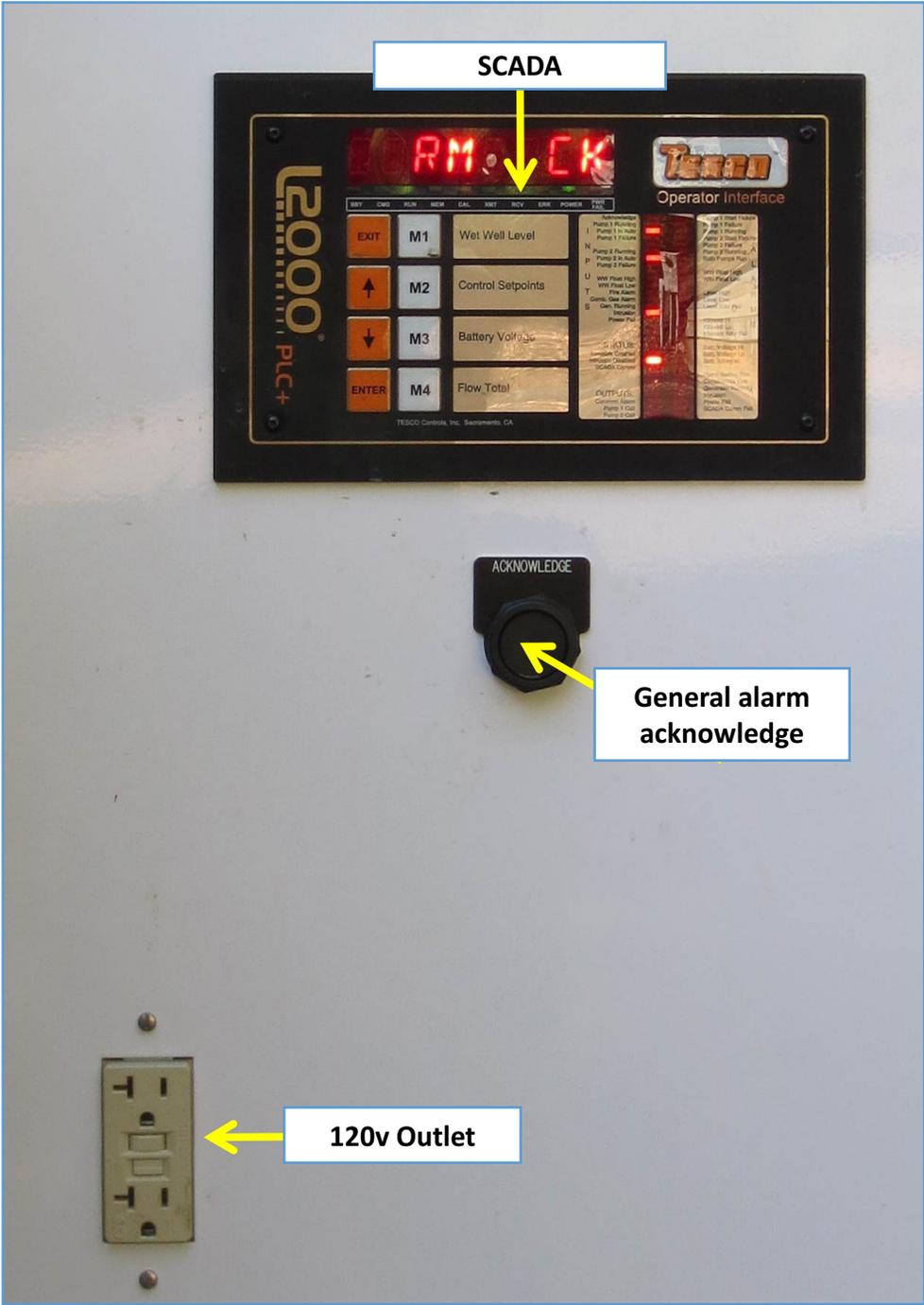
Next

Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and by an automatic backup generator. Care must be taken to disable all energy sources.

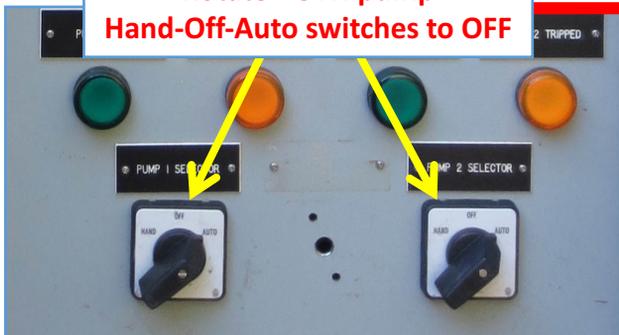
Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

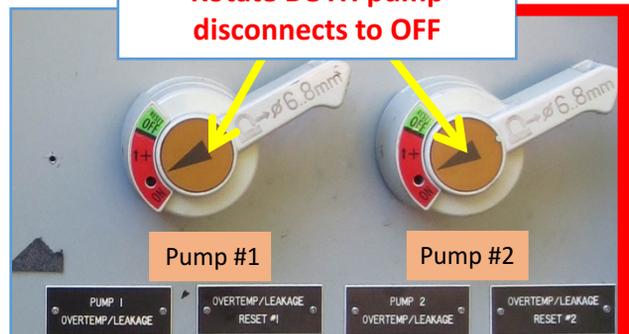
1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down (if attached) and disable the generator
4. Move the utility service disconnect to OFF & install LOTO device & tag
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Rotate BOTH pump
disconnects to OFF**

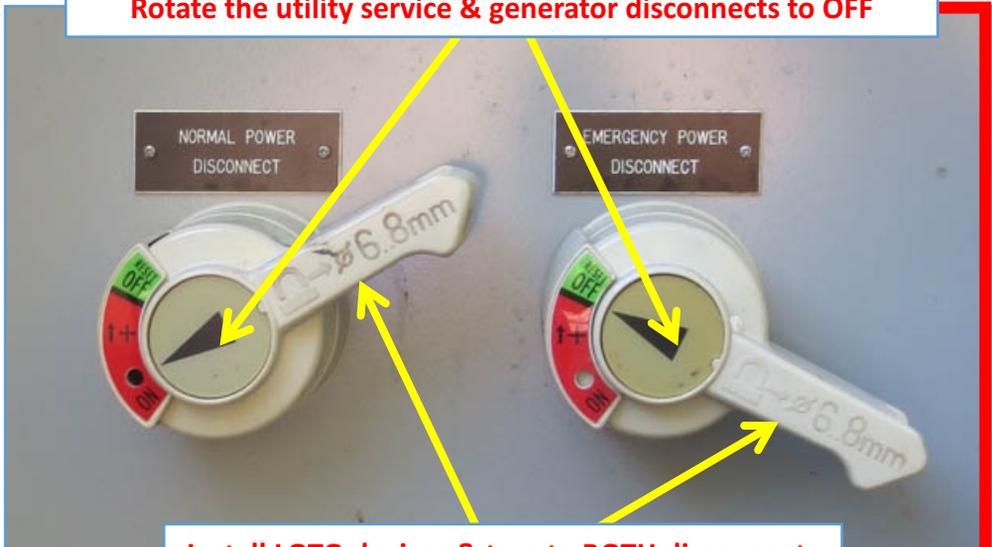


Next

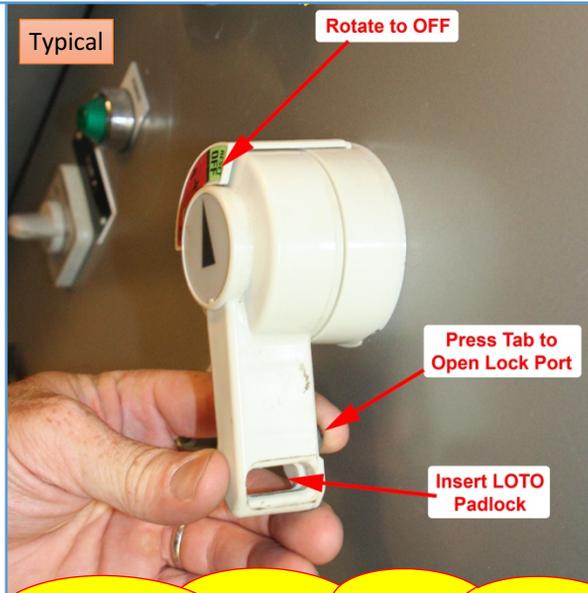
Lockout/Tagout Procedures

If a portable generator is attached, shut it down and disable it from starting

Rotate the utility service & generator disconnects to OFF



Install LOTO devices & tags to BOTH disconnects



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

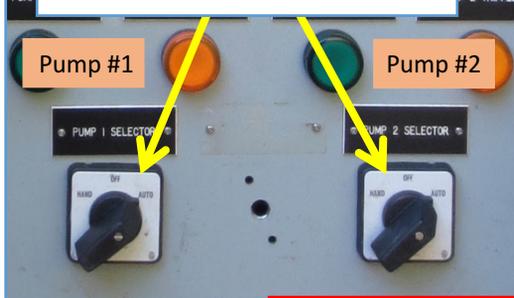
Individual Pumps – Electrical LOTO

On control panel for desired pump

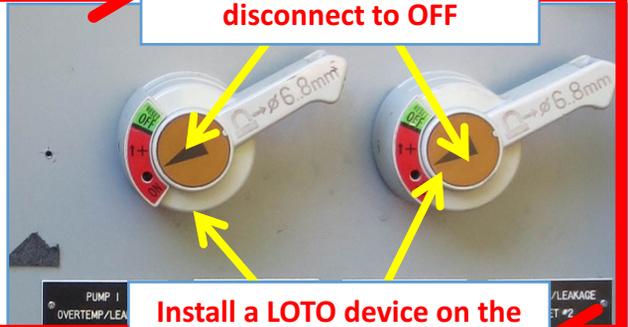
1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel

**Rotate the desired pump
Hand-Off-Auto switch to OFF**

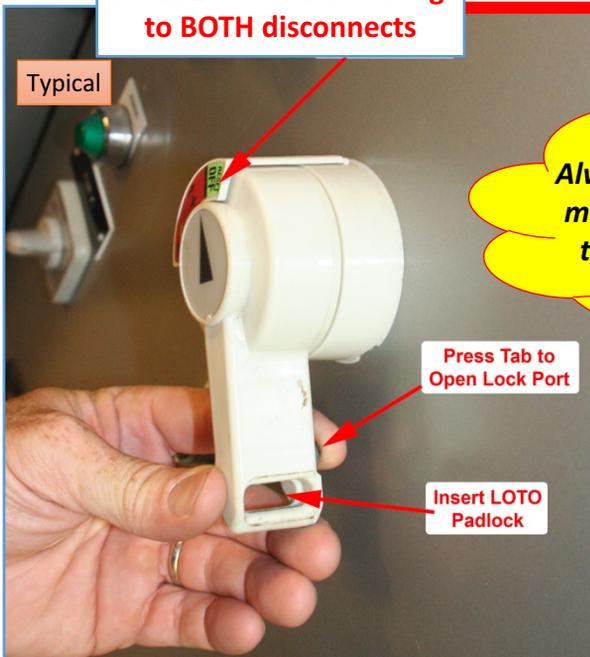


**Rotate the associated pump
disconnect to OFF**



**Install a LOTO device on the
pump disconnect breaker**

**Install LOTO devices & tags
to BOTH disconnects**



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

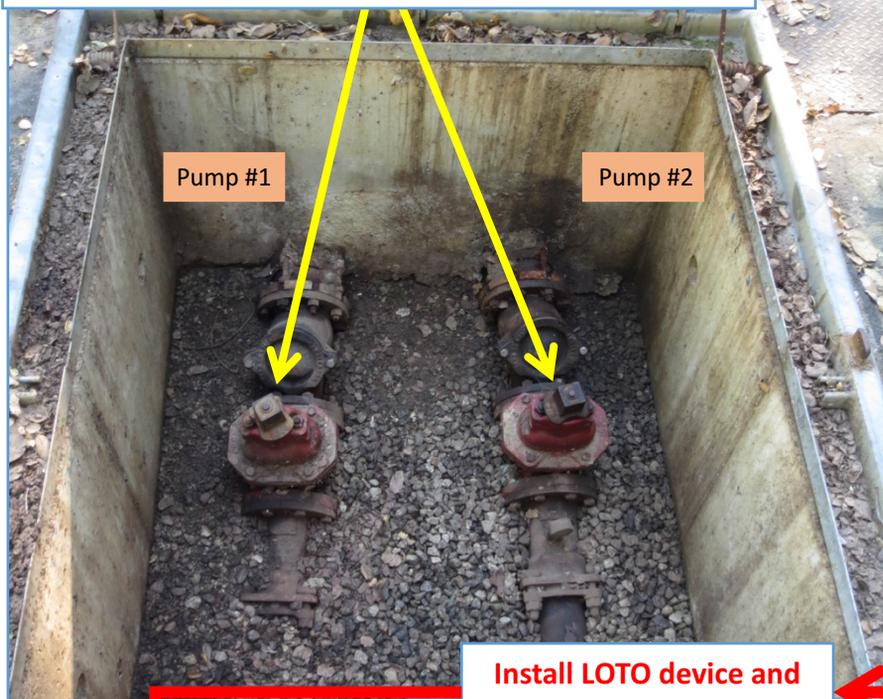
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

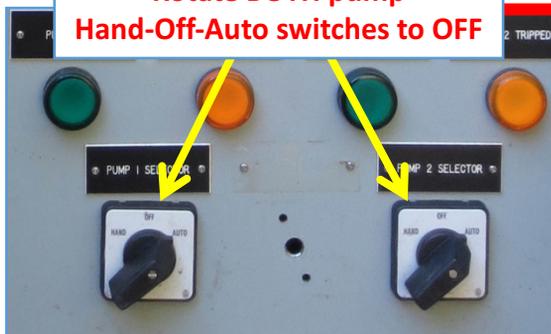
Generator Operation

Portable Generator Connection & Operation

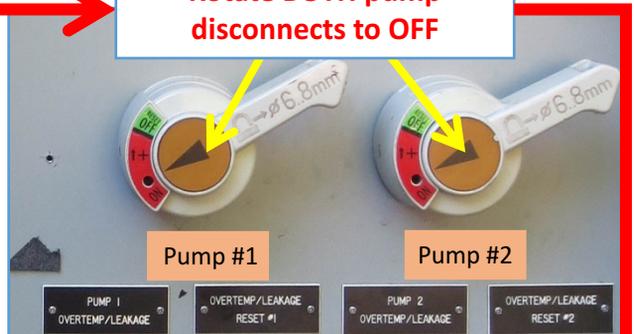
- Reduce the potential load on the station – Shut pumps off
- Shut the utility service disconnect OFF
- Turn the Emergency Power disconnect ON
- Connect the generator
- Start the generator & then turn the generator output breaker ON
- Enable the pumps as desired

Begin

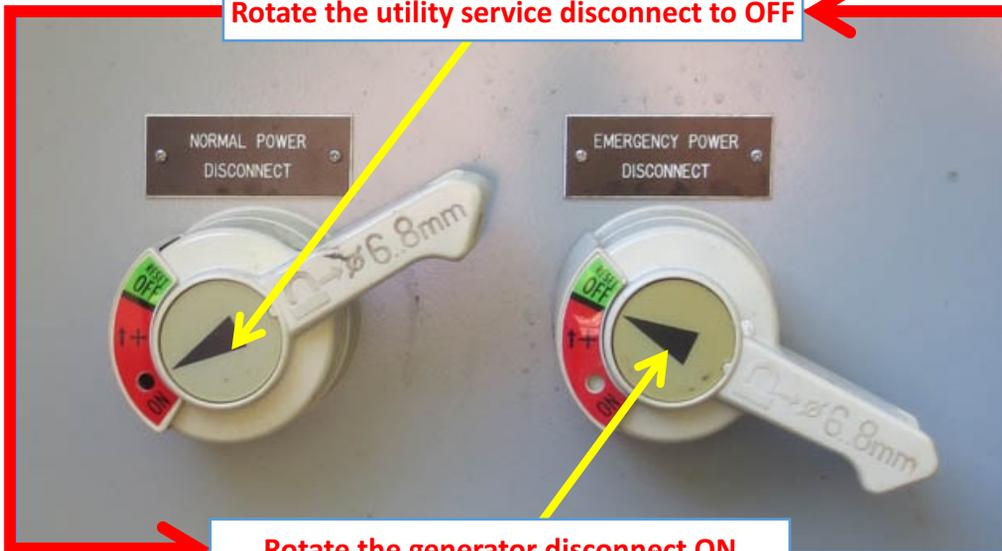
Rotate BOTH pump
Hand-Off-Auto switches to OFF



Rotate BOTH pump
disconnects to OFF



Rotate the utility service disconnect to OFF



Rotate the generator disconnect ON

Next

Generator Operation

This station requires 240v 3-phase power
Be sure the generator is appropriately sized and configured for use

Connect the portable generator to
the emergency generator power port



Follow the appropriate Portable Generator Procedures for starting and bringing the portable generator online
→ *Once it's operating, continue*

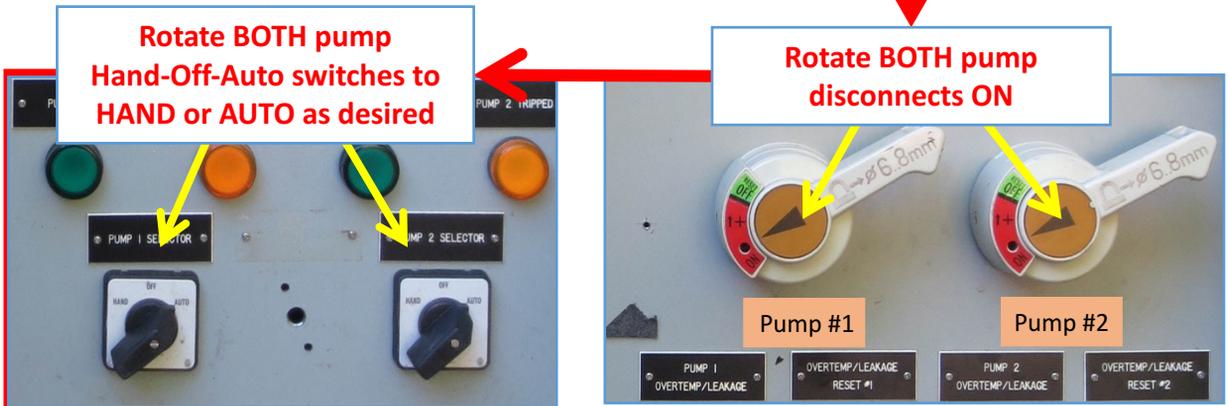
Next

Generator Operation

AS DESIRED: Enable station systems

**Rotate BOTH pump
Hand-Off-Auto switches to
HAND or AUTO as desired**

**Rotate BOTH pump
disconnects ON**



At this point, the station should be running on generator power and completely independent of utility grid power

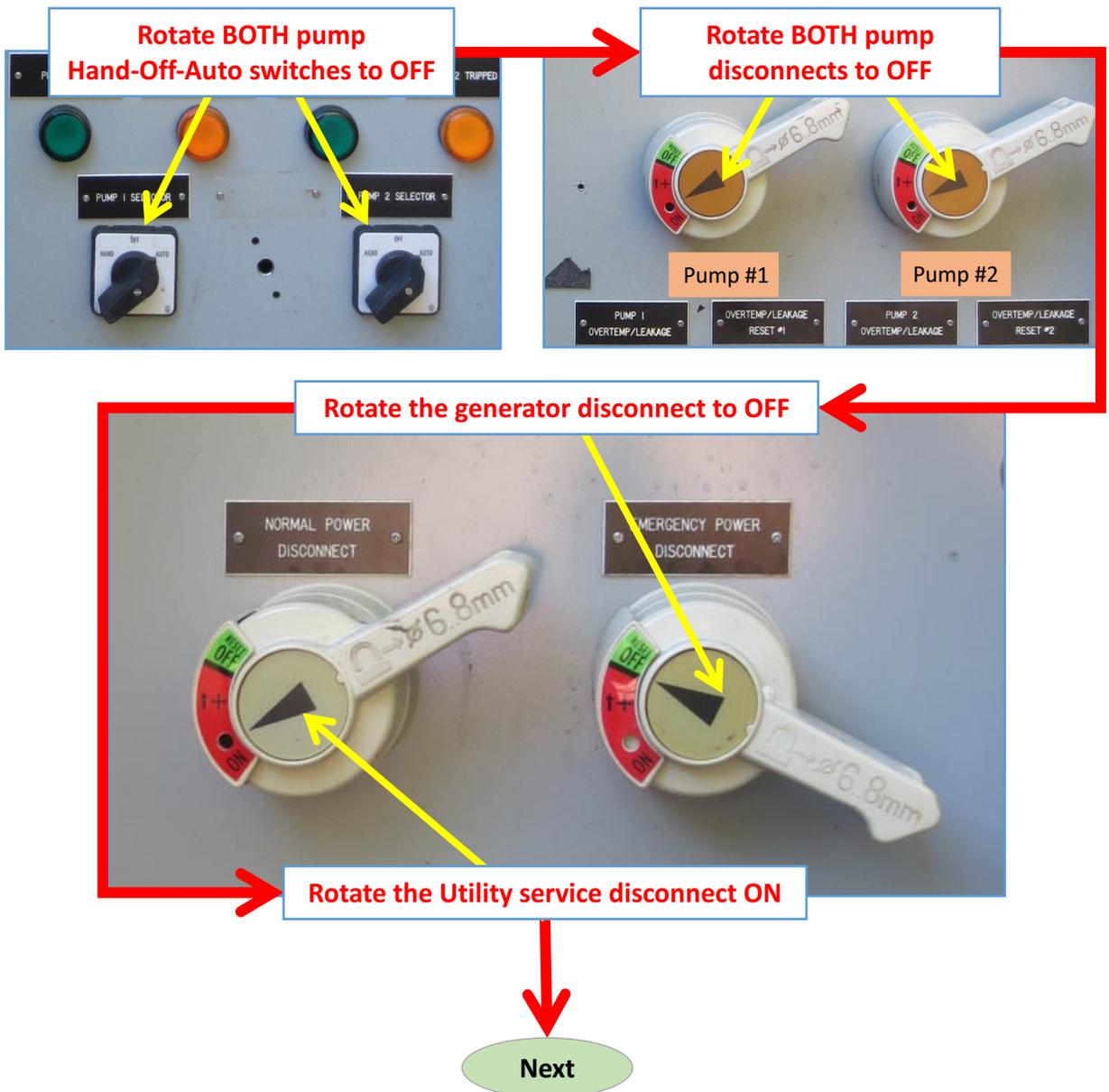
Done

Generator Operation

To return to utility power

- Reduce the potential load on the station – Shut pumps off
- Shut the generator OFF & disconnect the generator
- Unlock and move the manual transfer switch to UTILITY/PG&E POWER
- Move the main utility service breaker to ON
- Enable the pumps as desired

Begin



Generator Operation

Follow the appropriate Portable Generator Procedures for shut down and disabling the portable generator → *Once it's fully stopped, continue*

Disconnect the portable generator from the emergency generator power port



At this point, the station should be running on UTILITY/PG&E Power

Done

Bypass to Force Main

Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the valves needed to return to normal operations

Begin Procedure

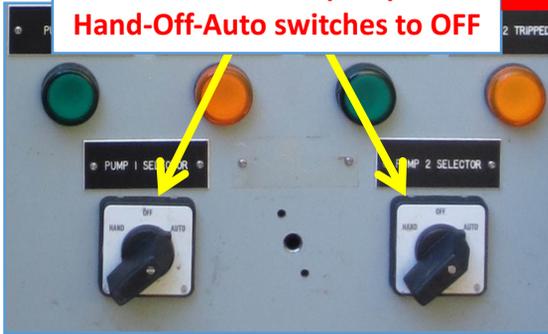


Next

Bypass to Force Main

Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

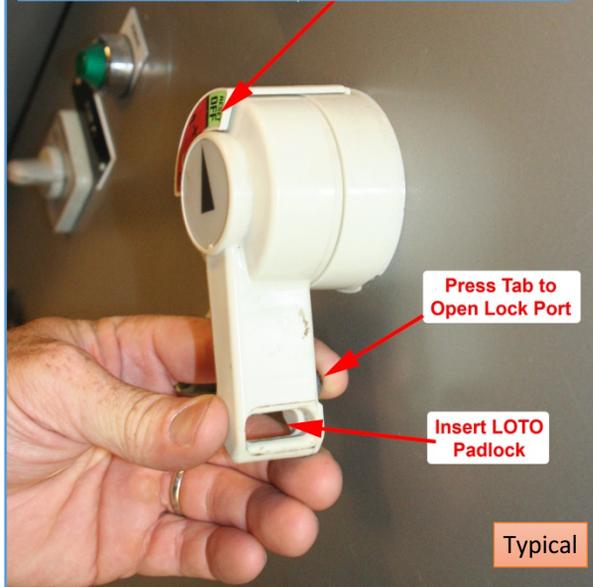
Rotate BOTH pump Hand-Off-Auto switches to OFF



Rotate BOTH pump disconnects to OFF



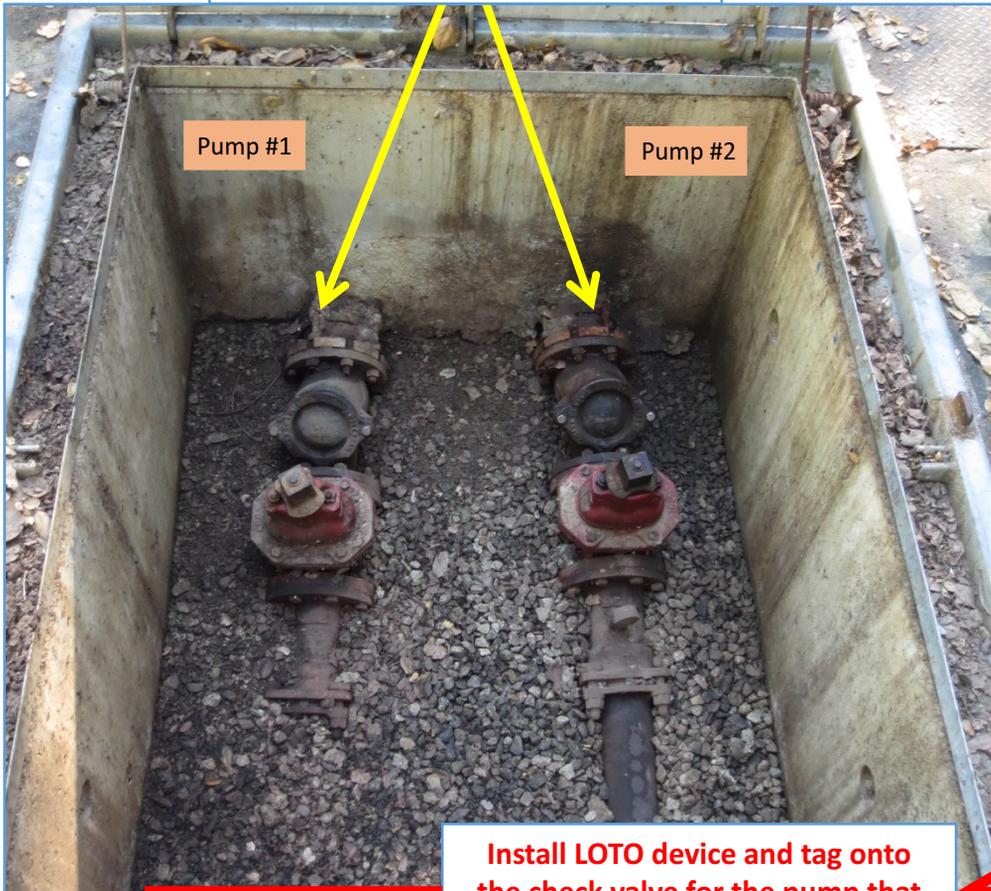
Install a LOTO device on the pump disconnect breaker for the pump that will have its check valve worked on



Next

Bypass to Force Main

Close the both discharge valves



Install LOTO device and tag onto the check valve for the pump that will have it's check valve worked on

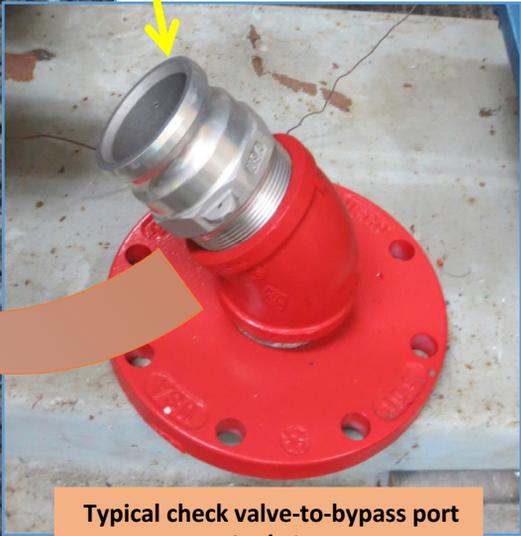


Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Next

Bypass to Force Main

Install a flange/coupler onto the bypass valve



Typical check valve-to-bypass port coupler/adapter

Next

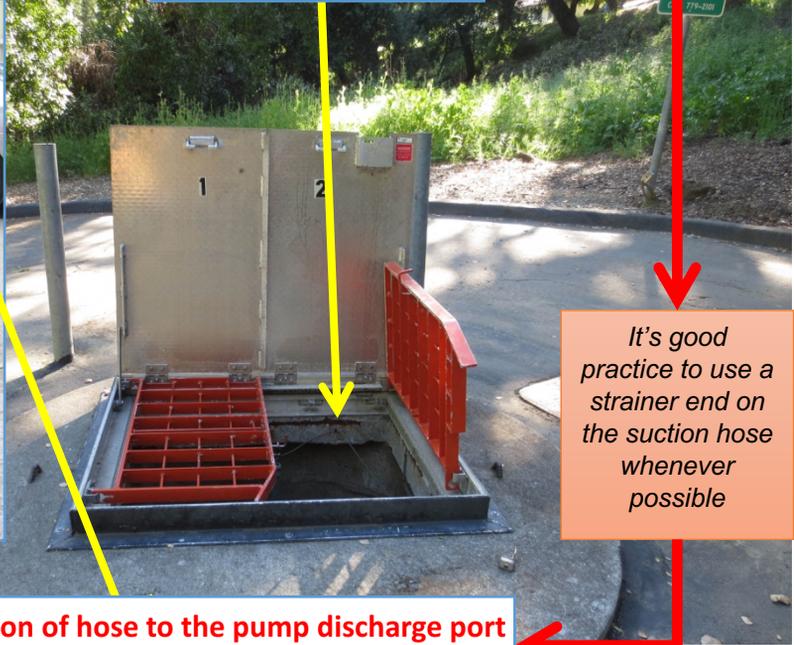
Bypass to Force Main

Connect a suction hose with strainer-end to the intake port



Typical trash pump

Lower the suction hose into the wet well



It's good practice to use a strainer end on the suction hose whenever possible

Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Simulated

Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

Bypass to Downstream Manhole

Procedure Summary

Configure the station for bypass:

Although a station bypass using a portable pump is possible (and detailed below), the long hold time makes regular tanker transfers a better option for most situations.

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump; route the hose to the nearest gravity manhole
- Verify all connections
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the pump down & relieve any residual pressure
 - Disconnect the hoses and clean up
 - Return the station to normal operations



Next

Bypass to Downstream Manhole

Park & prepare the trash pump
Select a parking spot to limit hose bending

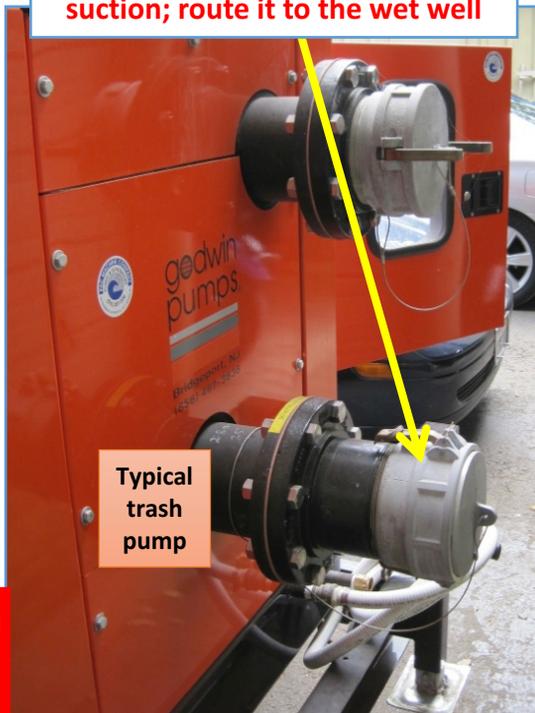
Set up appropriate traffic control devices as needed

Connect an intake hose to the pump suction; route it to the wet well

Lower the hose into the wet well

Typical trash pump

Next



Bypass to Downstream Manhole

Connect an discharge hose to the pump discharge port



Route the discharge to the discharge point
Approx. Discharge: 37.146539, -121.587811

- Route the hose up the hillside west of the station – *You may need to arrange property access from neighbors*
- Left down Oakridge Road
- Manhole in the road by 15890 Oakridge Rd



There will be multiple vehicle crossing points that will require attention!

Discharge point

Pump station



Next

Bypass to Downstream Manhole

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing



Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Relieve any residual pressure in the discharge line
- Carefully disconnect, drain & stow the discharge line → ***Be careful to release any residual pressure and sewage back into the wet well to avoid a spill!***
- Close the downstream manhole
- Carefully disconnect, drain & stow the intake line
- Close the wet well
- Return the station to normal operations as desired
- Clean up and depart



Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

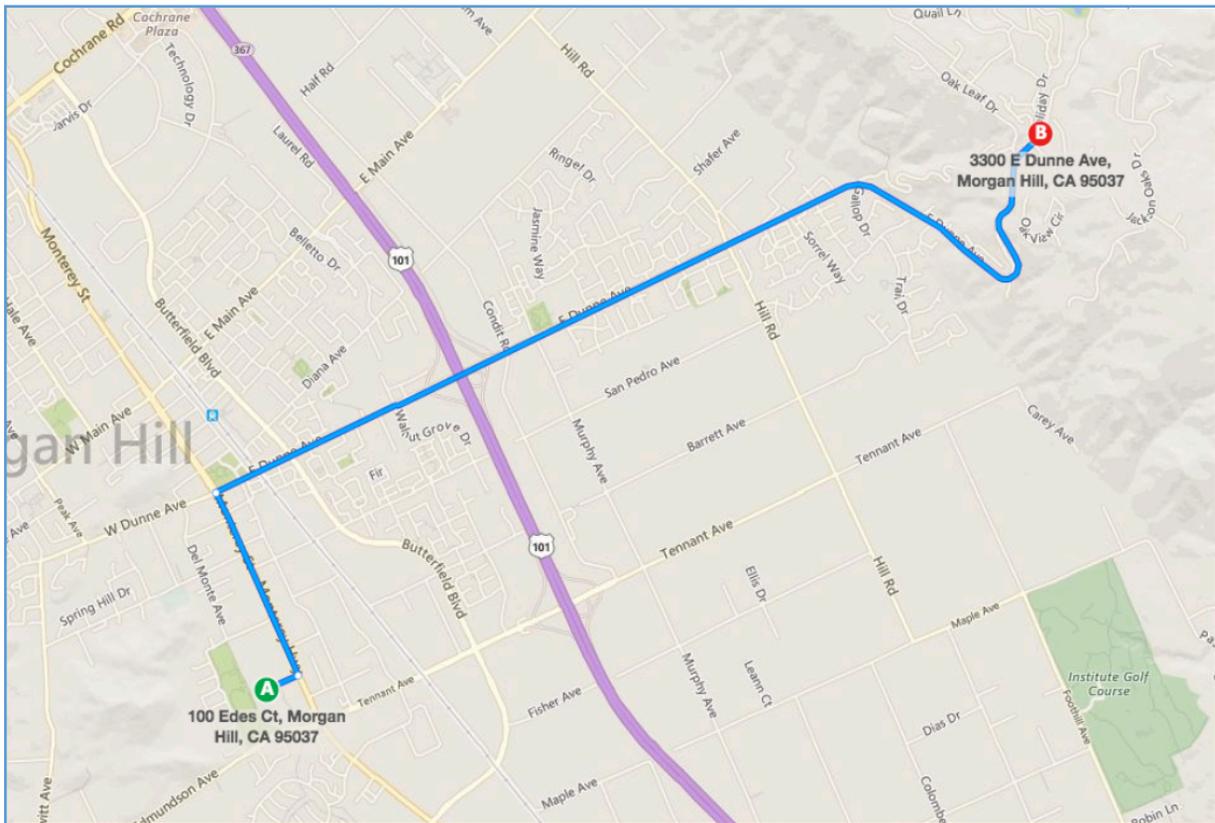


Pump Station PS-K
3300 E. Dunne Ave

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
Spill Containment	15
Pump Station Power Map	16
Pump Station Control System	17
Lockout/Tagout Procedures	21
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Bypass to Downstream Manhole	38
Contact Information	42
System Map	46

Pump Station Technical Information

Name	PS-K – 3300 E. Dunne Ave Pump Station
Address	3300 E Dunne Ave., Morgan Hill, CA 95037
Lat., Long.	37.146004, -121.593371
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Turn Right onto E. Dunne Ave. The pump station will be on your right at 3300 E. Dunne Ave



Pump Station Technical Information

Station Information

Wet well dimensions & capacity	Tank 1: 8' diameter x 12' deep; 4,512 gallons Total Capacity: 4,512 gallons
Est. hold time (dry weather)	13.5 hours
Low point (likely overflow point)	The wet well is the station's low point Approx GPS: 37.146004, -121.593371
Upstream pump station(s)	None. Gravity only.
Downstream pump station	WWTP
Forcemain Data	4" x 1,315'
Discharge location	37.143118, -121.595729

Pump Capacities

Pump	Motor & Pump	Capacity
#1	Flygt 3102/462, 5hp, 240v 3-phase	120 gpm
#2	Flygt 3102/462, 5hp, 240v 3-phase	120 gpm

Station Power

Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	n/a – Station power is provided by the water booster pump station at the same location
	PG&E Meter #	
	PG&E Outage Block	
	Priority	Sewer pump station
Backup Generator	The booster pump station is equipped with a Katolight permanently installed backup generator.	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port. However the station may be bypassed by routing a hose to a nearby gravity manhole.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

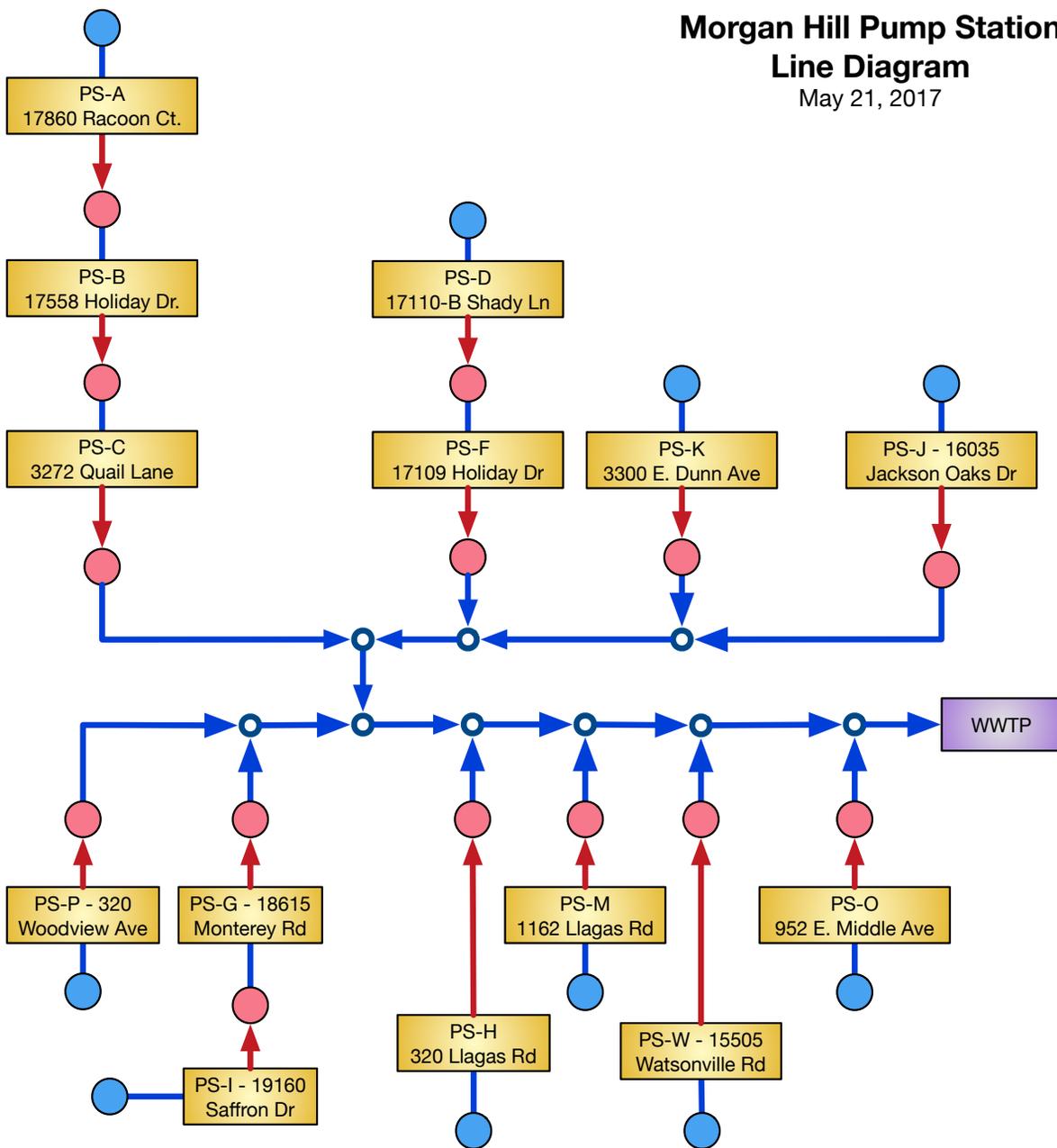
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

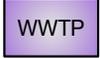
In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

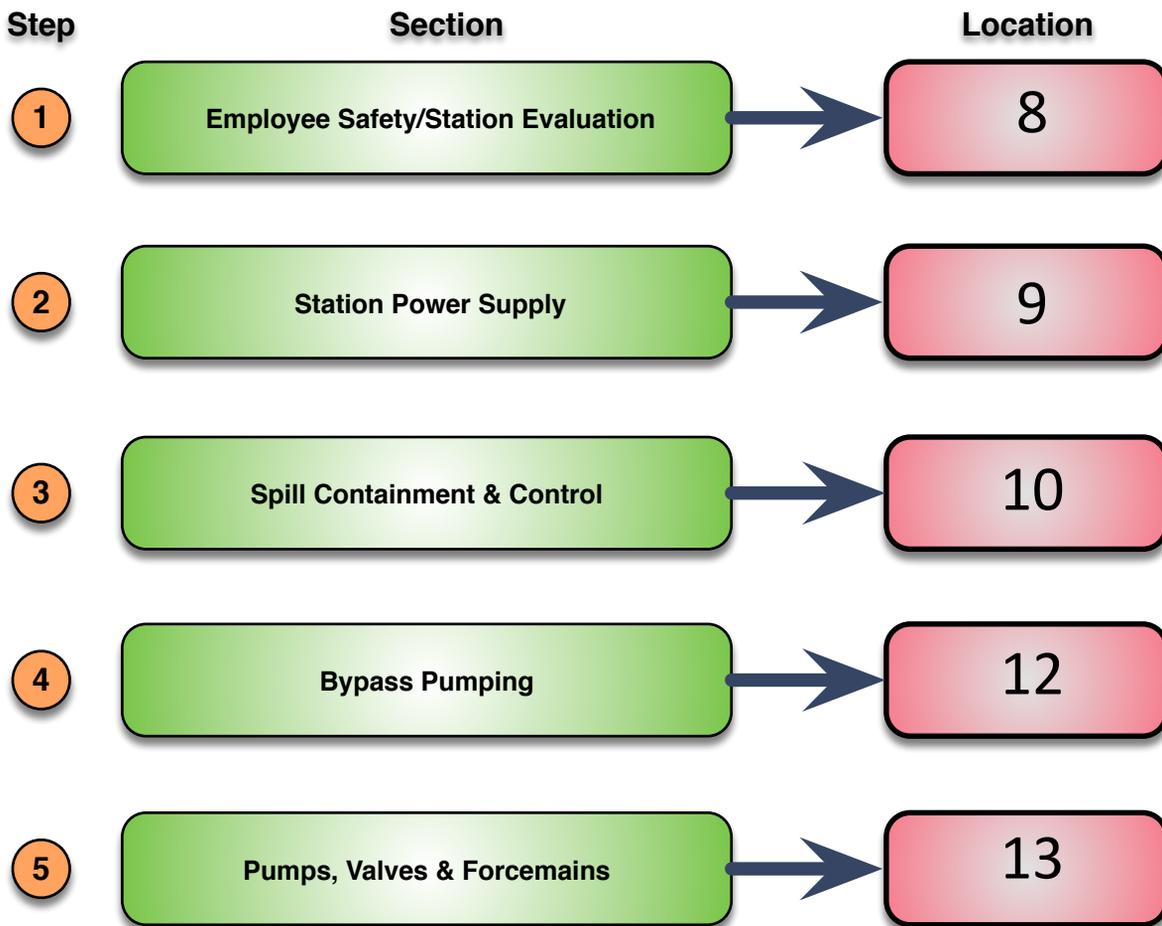
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
	Gravity Feed Only
	Force Main Discharge
	Force Main Junction
	Gravity feed junction (non specific)
	Force main & flow direction
	Gravity line & flow direction
	PS Morgan Hill managed PS
	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide **Decision Tree Index**

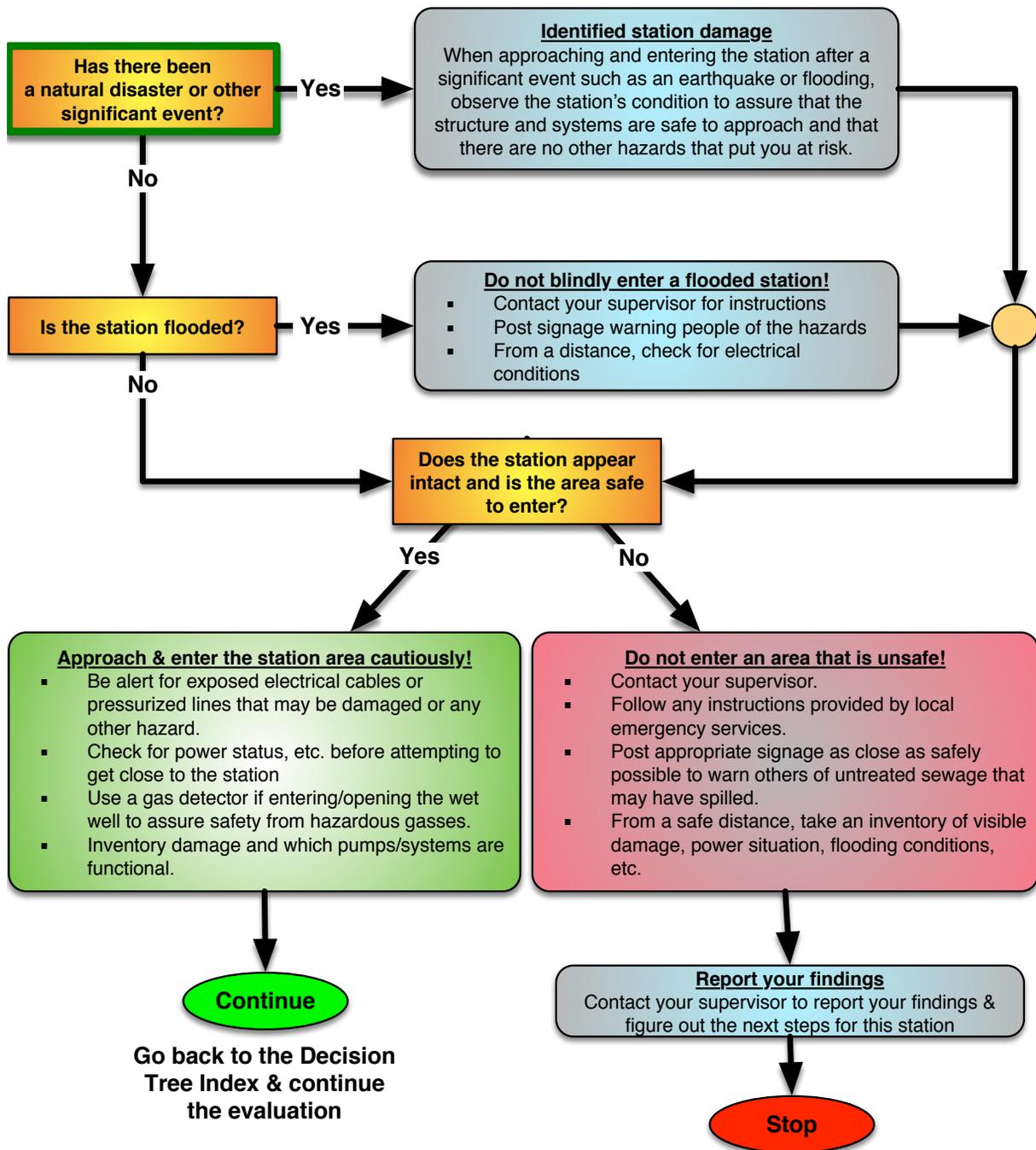


LEGEND

<p> Initial Question</p> <p> Page-To-Page Link</p> <p> Sequence Merge (Watch arrows for flow direction)</p>	<p> Decision Point</p> <p> Task/Direction Item</p>
--	--

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

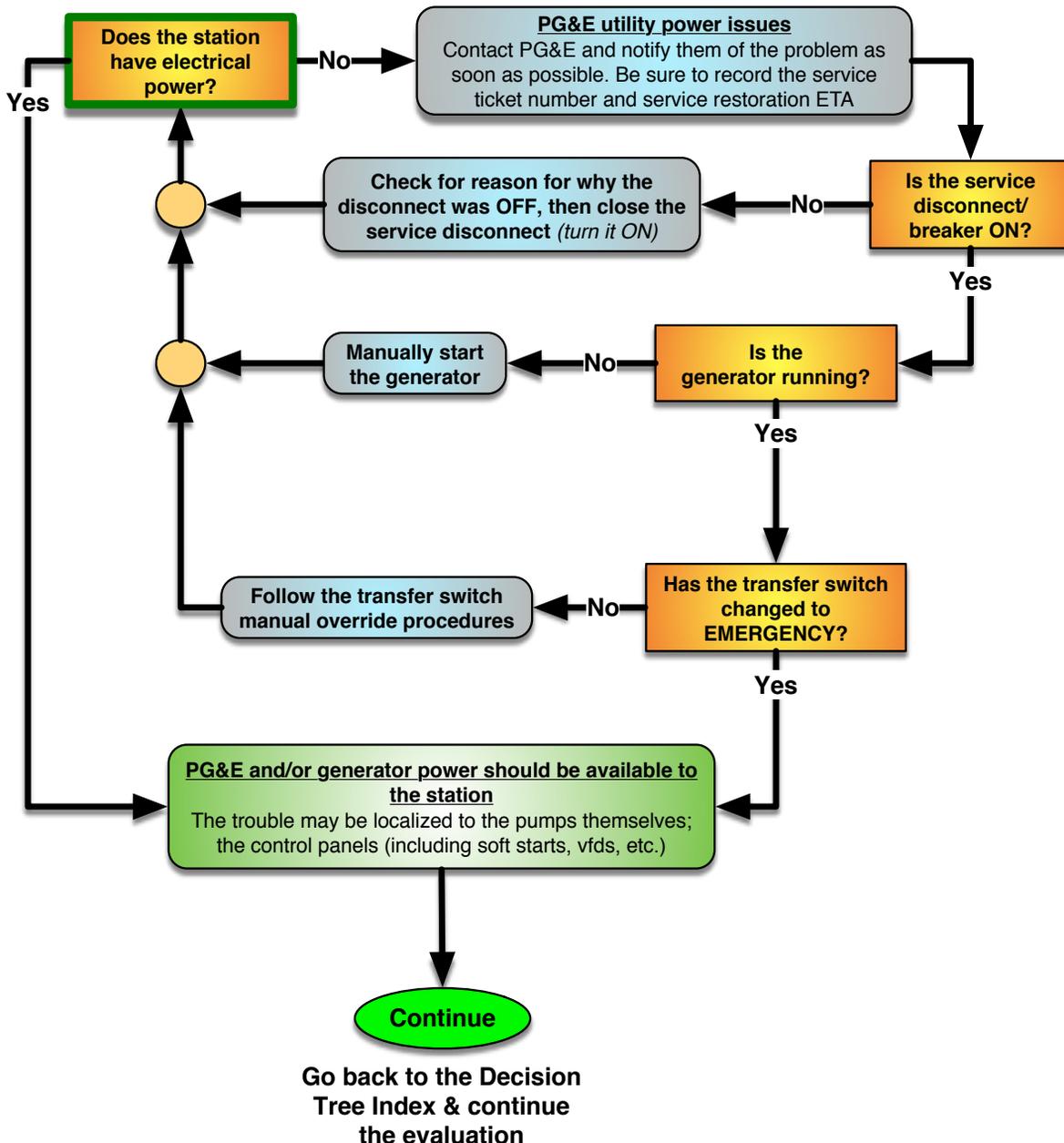


LEGEND

- Initial Question
- Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply

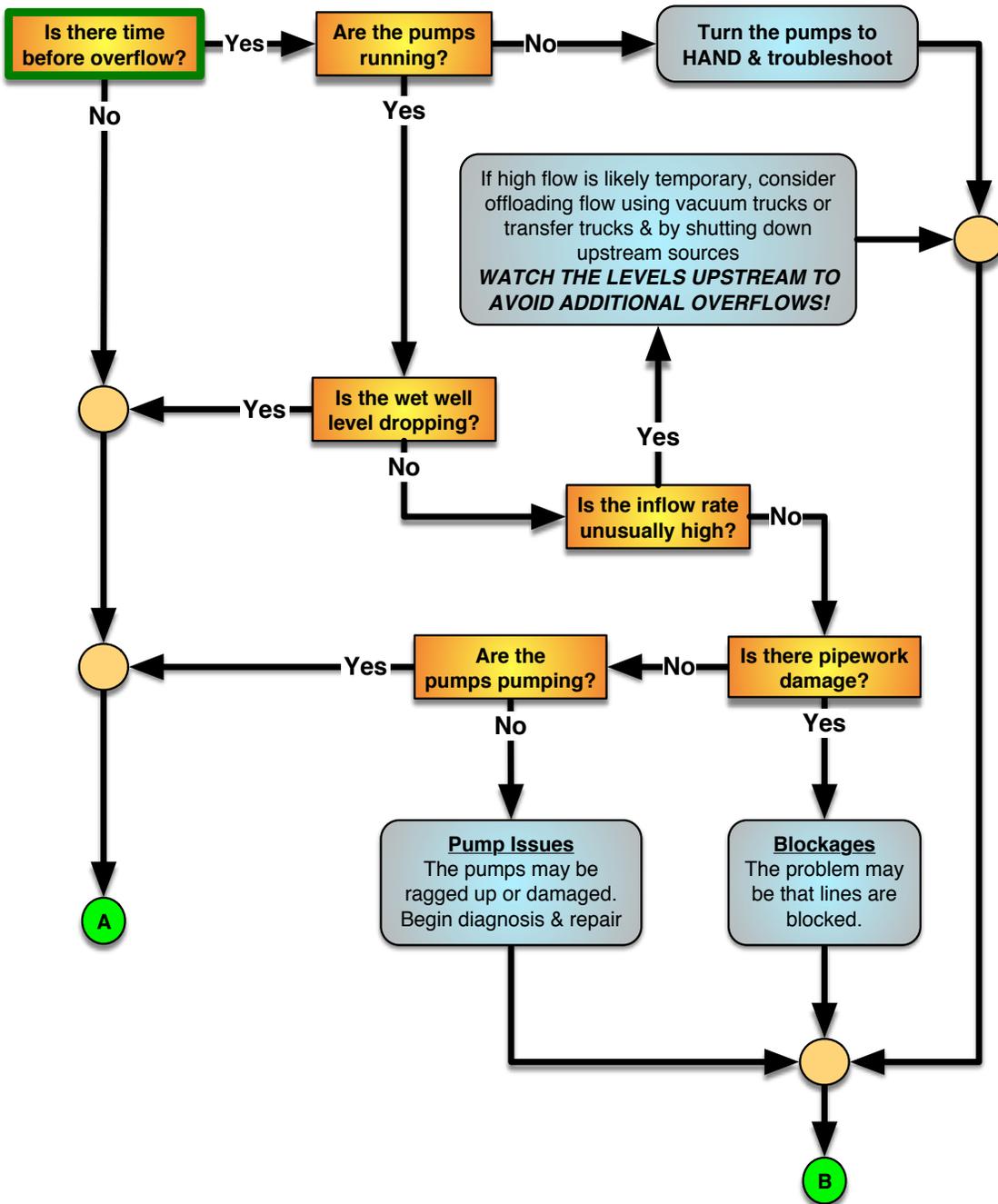


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

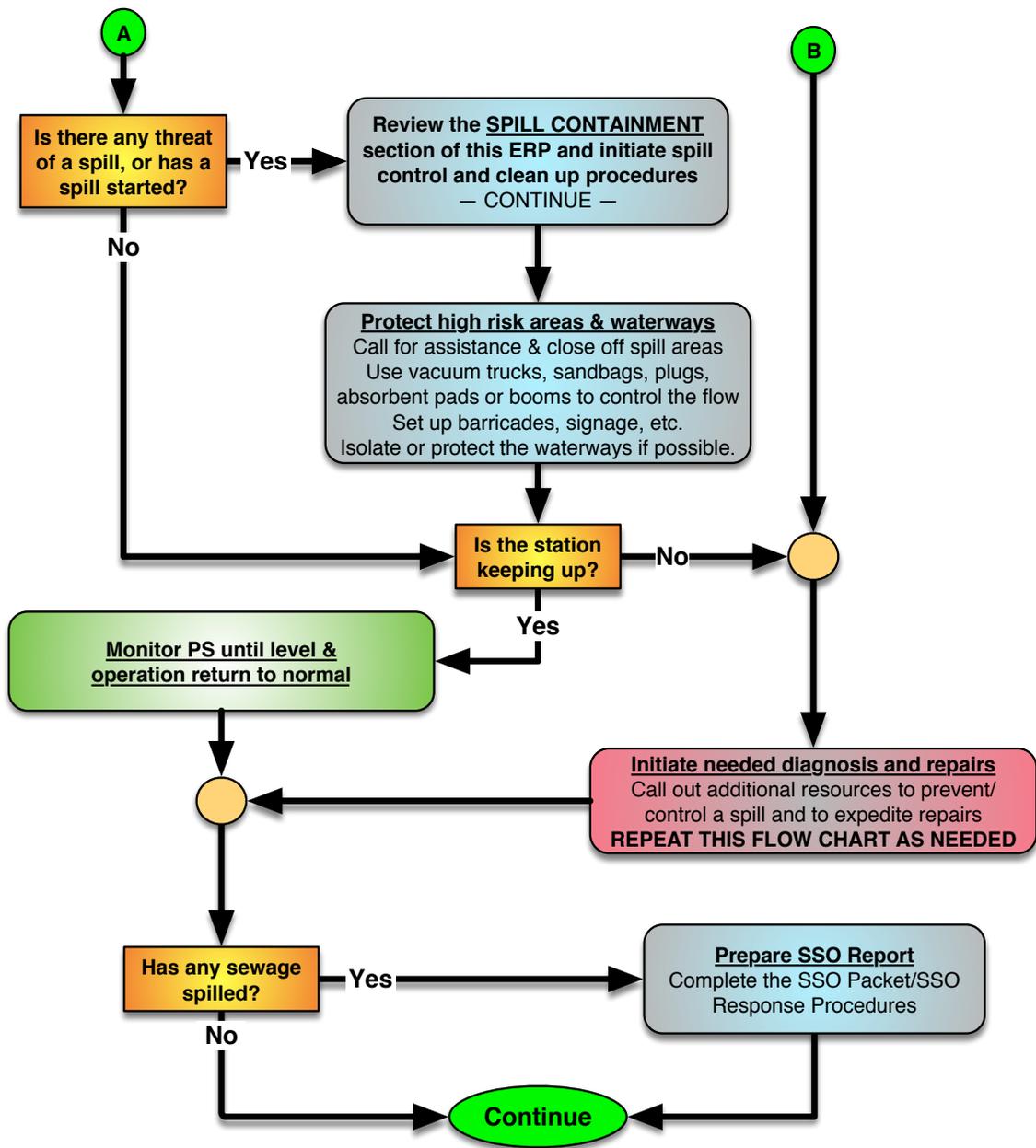
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ○ Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - Continued



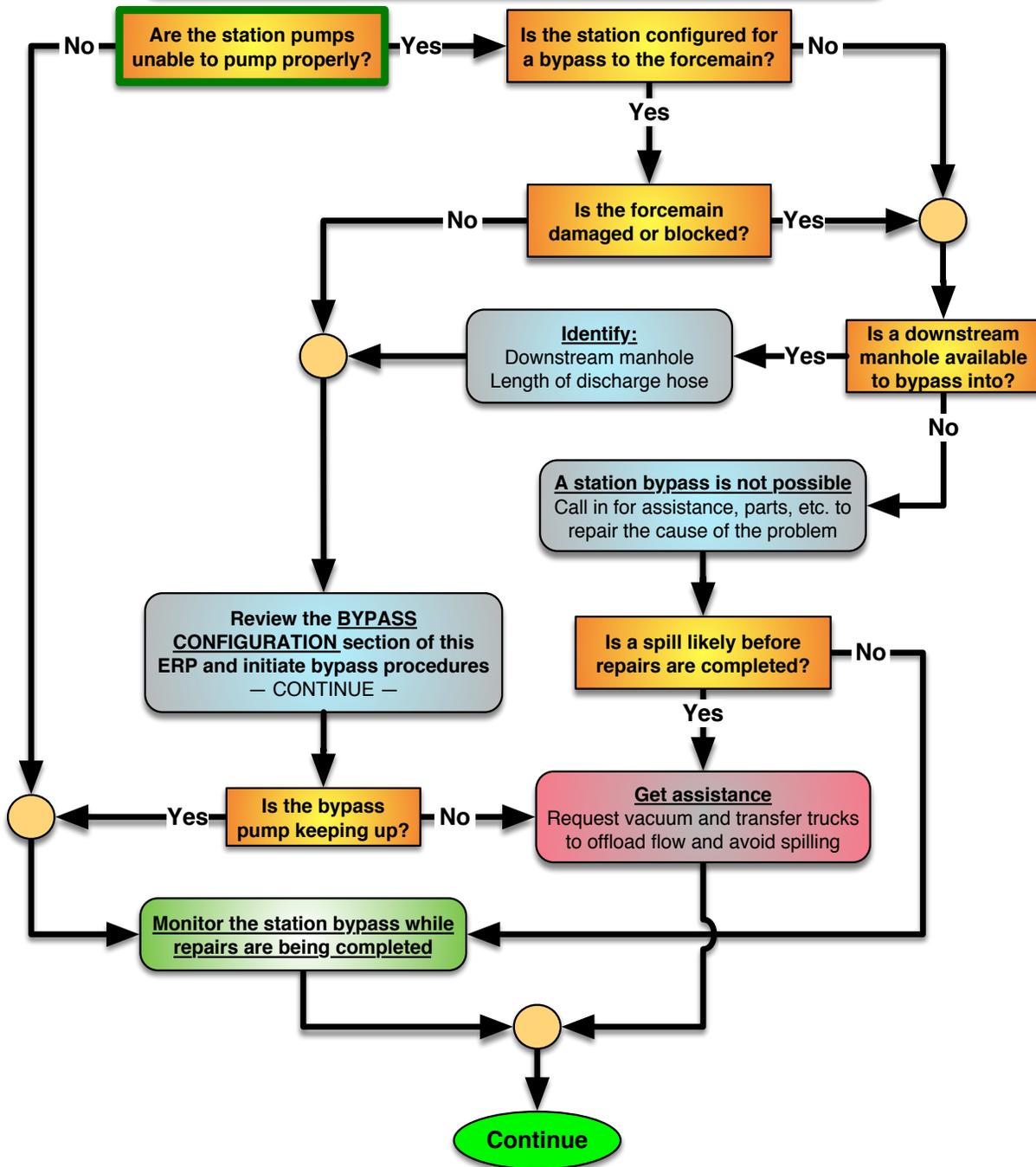
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



Go back to the Decision Tree Index & continue the evaluation

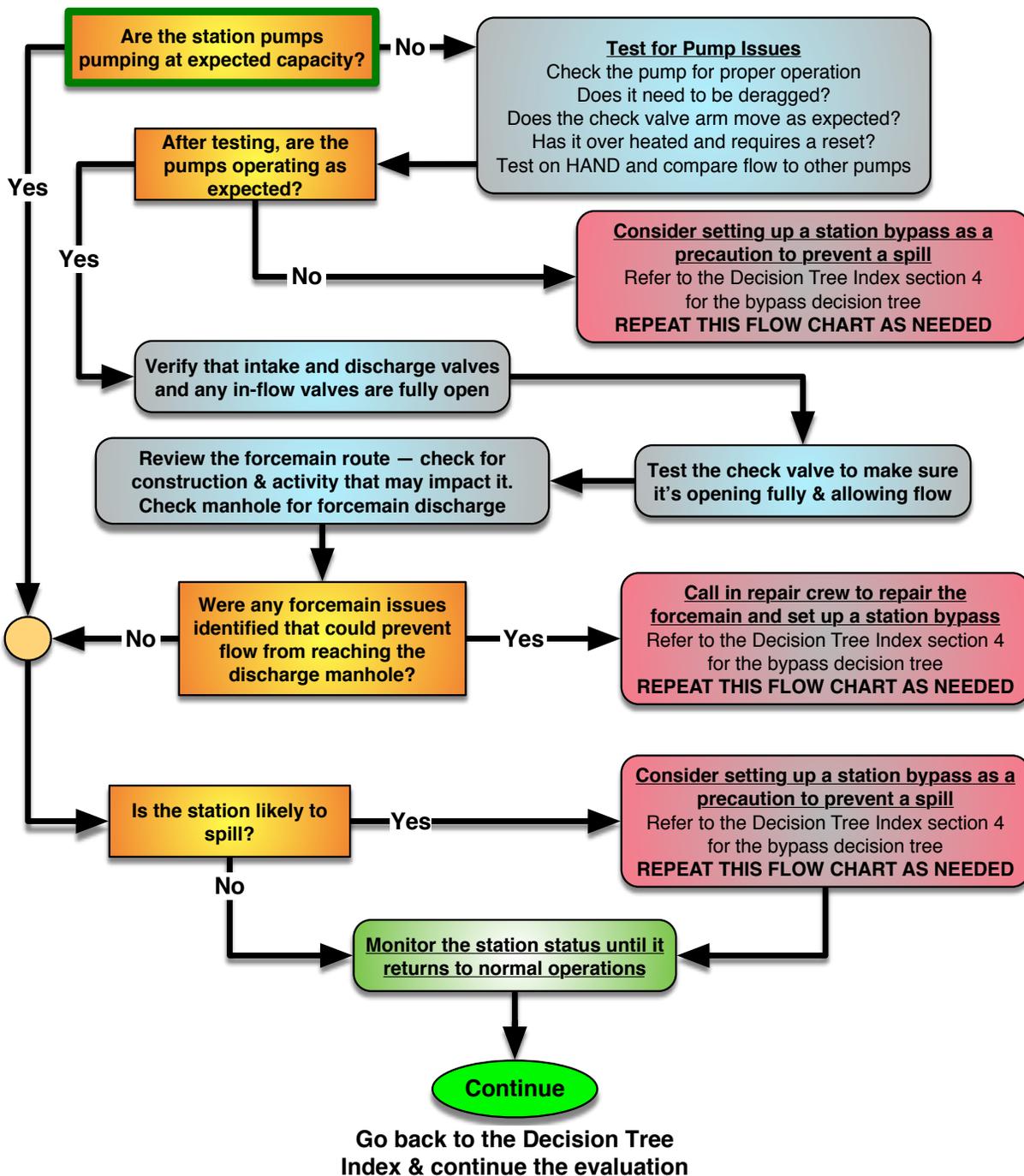
LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5

Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND



Initial Question



Page-To-Page



Sequence Merge



Decision Point



Task/Direction Item

Spill Notification Procedures

Pump Station K is located in the Jurisdiction of the
San Francisco Bay Regional Water Control Board (#2)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

See the Contact Information Section for contact information
Page 42

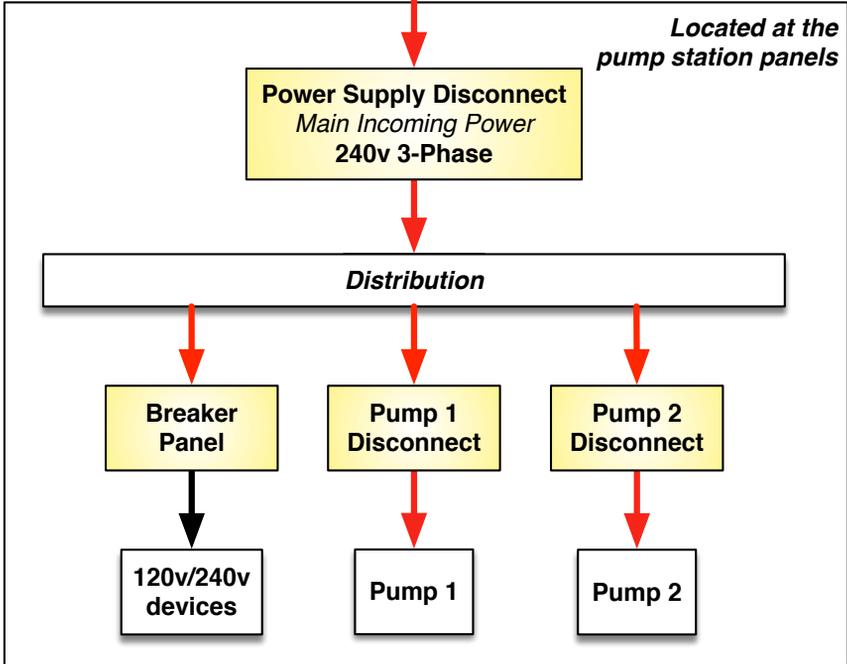
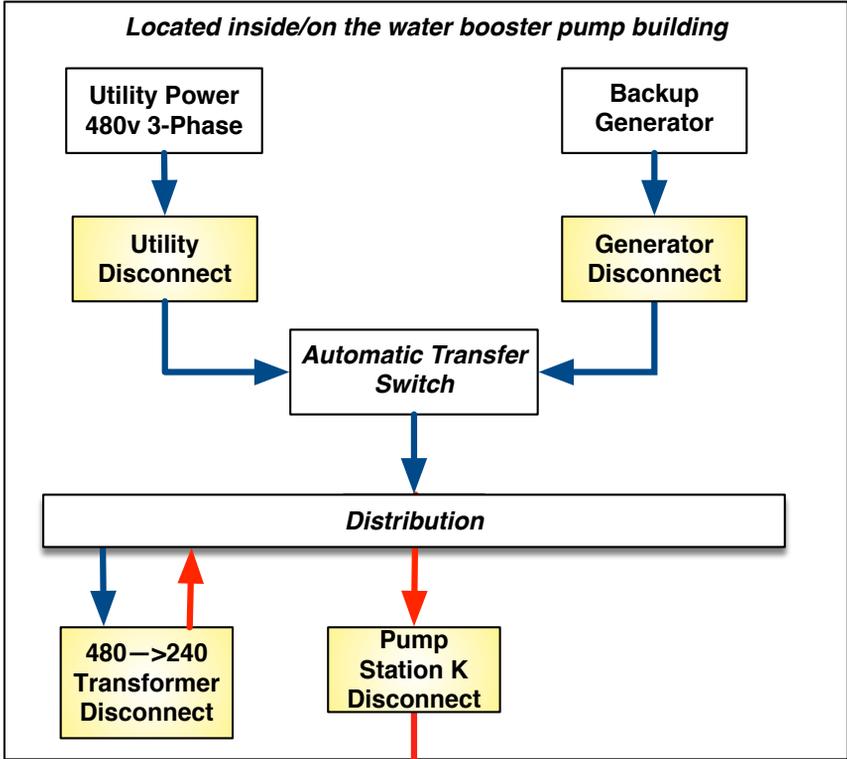
Spill Containment



Potential SSO Impact on State Water

	Type	Position from pump station	Containment
1	Pump station wet well	--	Overflow/spills will flow down the driveway and onto Dunne Ave. which has ditches/slopes along each side that ultimately flow to a nearby creek. Use sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Ditches and hills along side Dunne Ave	30' NW	
3	<i>Red arrows indicated most likely flow direction from system low points</i>		

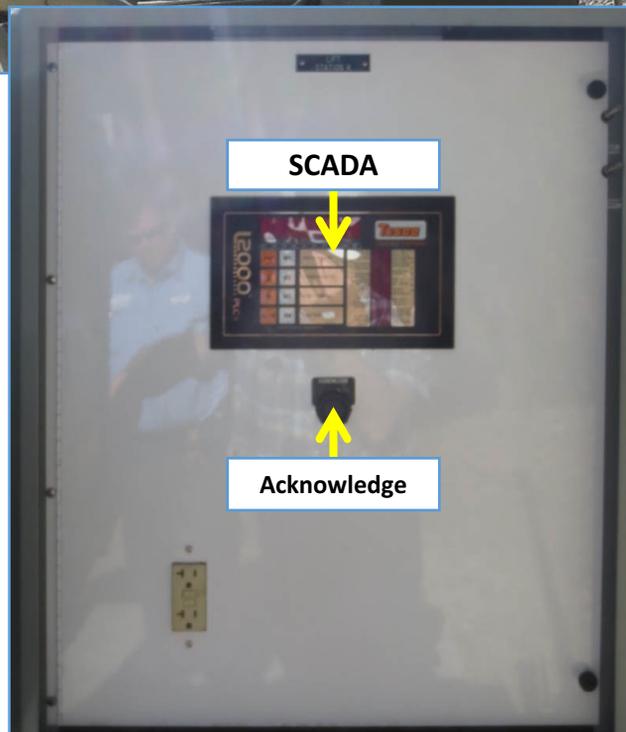
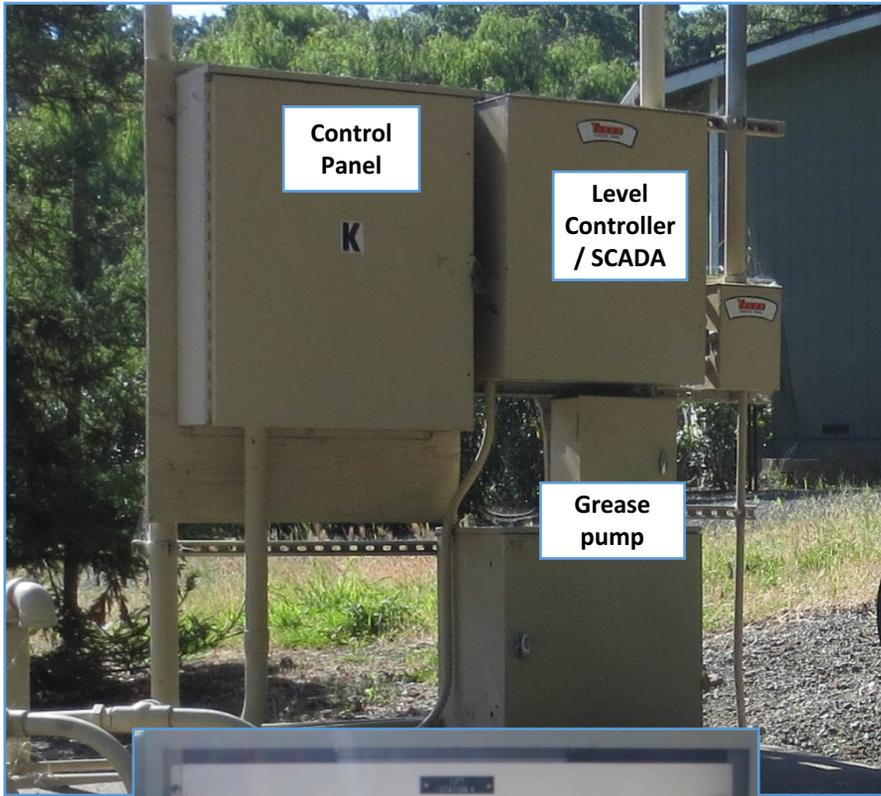
Pump Station Power Map



Done

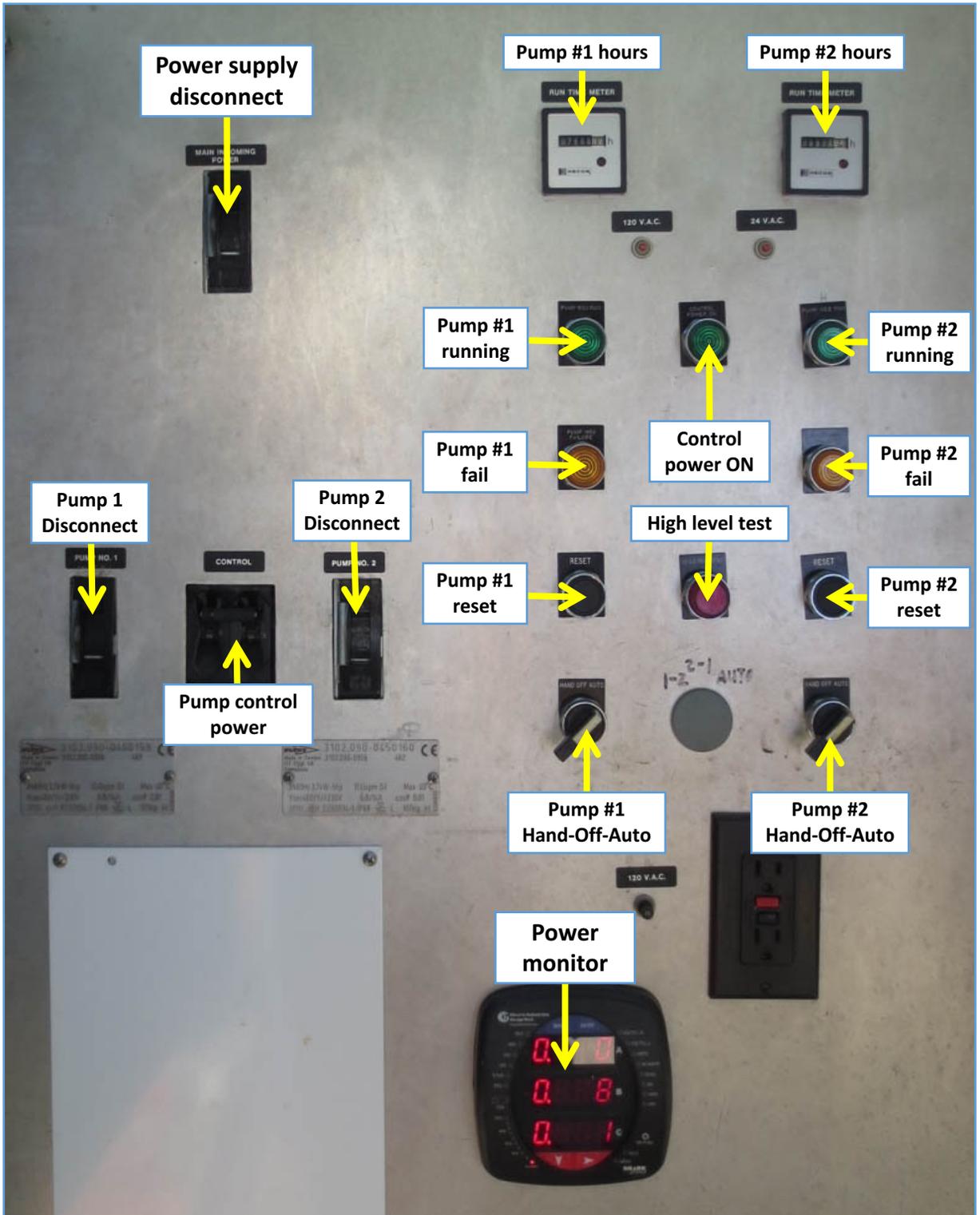
Pump Station Control System

Sewer Pump Station K Control Panels



Next

Pump Station Control System

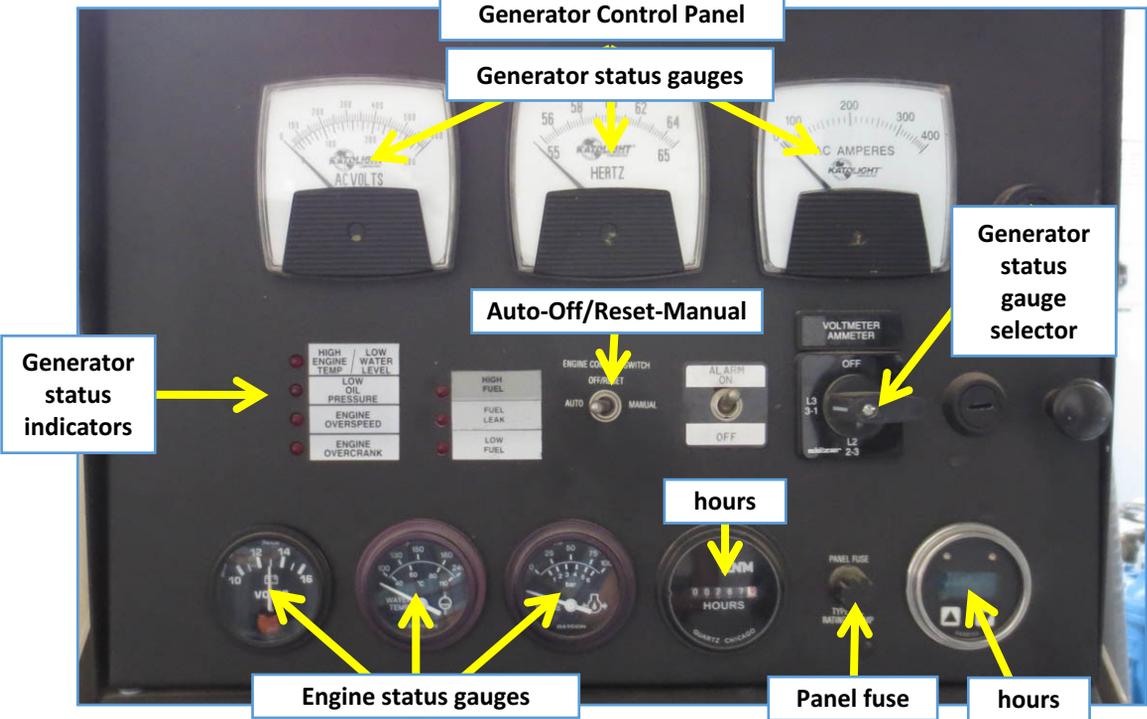


Next

Pump Station Control System

Water Booster Pump Station Control Panels

NOTE: Only panels associated with Pump Station K are shown



Next

Pump Station Control System

MCC Panel Inside Booster Station



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the Water Booster Pump station which has a back generator. Care must be taken to disable all energy sources.

Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

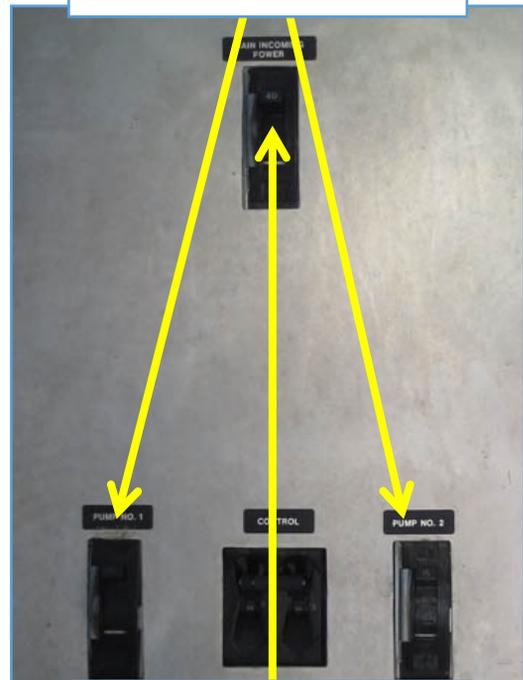
1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnect DOWN to OFF, then
3. Move the main incoming power disconnects OFF
4. In the booster station, move the Pump Station K disconnect to OFF & install LOTO devices & tags
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**

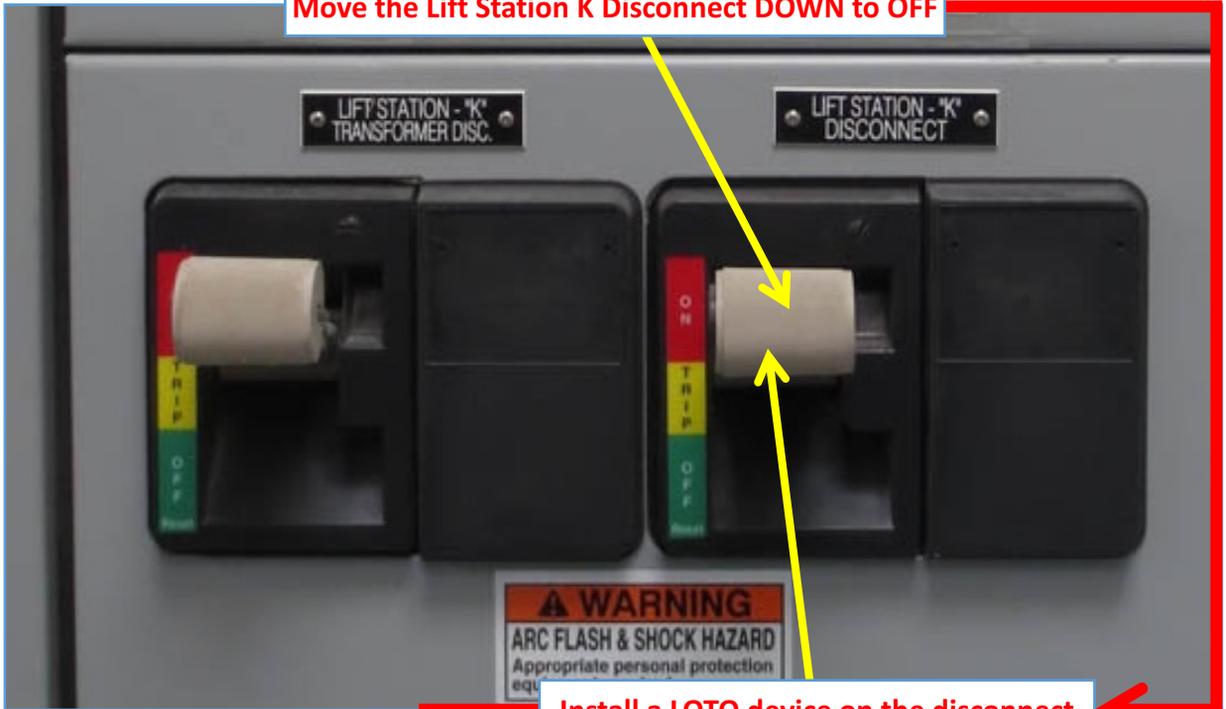


**Move main power disconnect
DOWN to OFF**

Next

Lockout/Tagout Procedures

Move the Lift Station K Disconnect DOWN to OFF



Install a LOTO device on the disconnect

Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

CAUTION!
This LOTO process only shuts down power at the sewer pump station K. It does not disable power for the booster pump station!



Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

On control panel for desired pump

1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel

**Rotate the desired pump
Hand-Off-Auto switch to OFF**



**Move the associated pump
disconnect DOWN to OFF**



**Install a LOTO device on the pump
disconnect breaker lockout tab**



**Always test for electrical voltage at the point of
maintenance both before and after locking out
the system to verify that it's fully locked out!**

Done

Lockout/Tagout Procedures

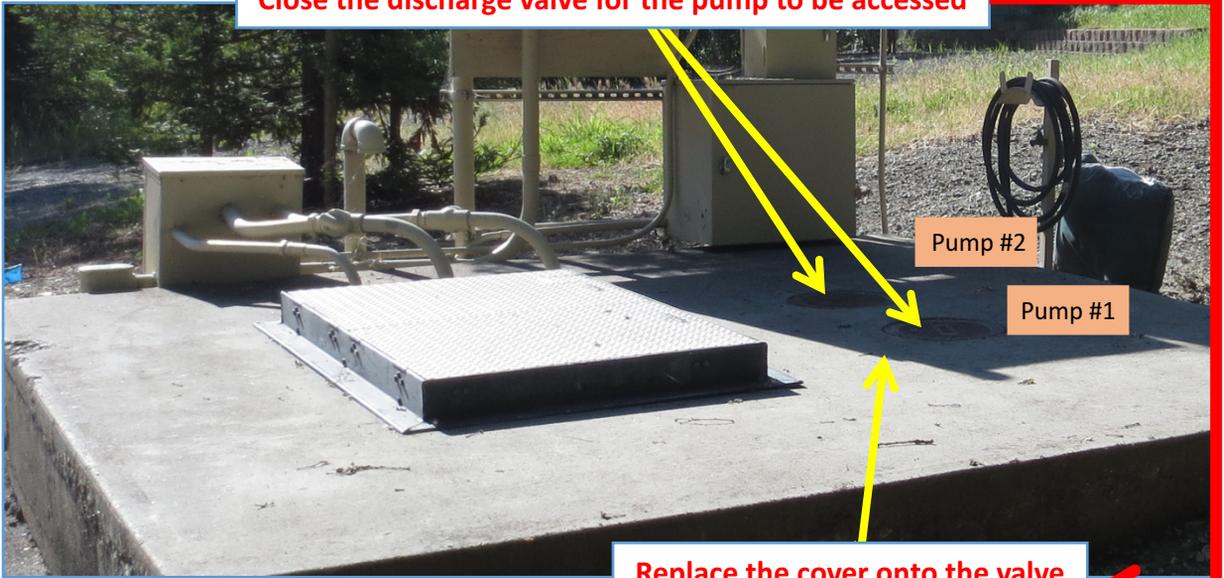
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Replace the cover onto the valve and attach a LOTO tag to the lid

Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done



Generator Operation

If utility power is available

- Reduce the load on the station – Shut pumps off
- Follow the booster pump station procedures to reduce the station load
- Shut the utility disconnect on the MCC panel off
- *If the automatic transfer switch is operating properly, the generator will start then it should switch over to power the station from the generator*
- Enable the water booster pumps and sewer pumps as desired

Begin

**Rotate both pump
Hand-Off-Auto switches OFF**



**Move both pump disconnects
DOWN to OFF**



**Verify that the generator
disconnect is ON (UP)**



CAUTION!
The water booster pump equipment has additional steps required to reduce the pump station load before switching over to GENERATOR power. REFER TO THE BOOSTER PUMP STATION!

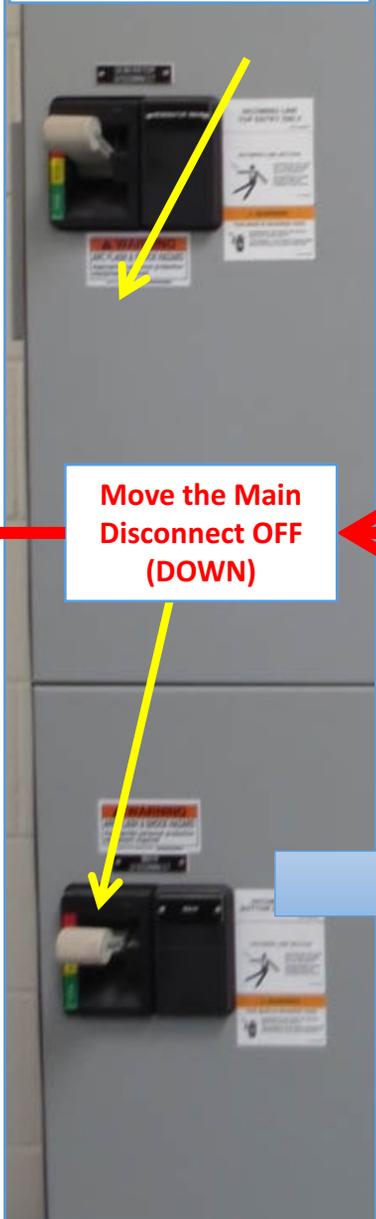
Next

Generator Operation

At the generator control panel, move the AUTO-OFF/RESET- MANUAL switch AUTO (LEFT)



Verify that the generator disconnect is ON (UP)



At this point, pump station should be operating on emergency generator power

Move the Main Disconnect OFF (DOWN)

If the generator fails to start see the next section or if the transfer switch fails to switch to the EMERGENCY (generator) load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET, then turn to page 31 and follow the section: "Transfer Switch – Manual Override"

AS DESIRED: Enable station systems including water booster pumps and sewer pumps

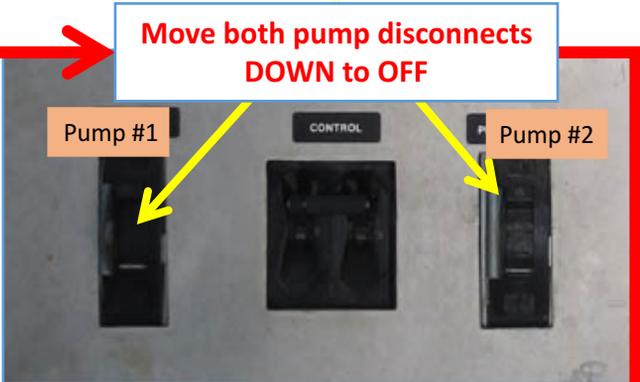
Done

Generator Operation

If utility power is NOT available and/or the generator has not started

- Reduce the load on the station – Shut pumps off
- Follow the booster pump station procedures to reduce the station load
- Make sure the generator output breaker is ON & put the generator switch into MANUAL
- Enable the water booster pumps and sewer pumps as desired

Begin



CAUTION!
The water booster pump equipment has additional steps required to reduce the pump station load before switching over to GENERATOR power. REFER TO THE BOOSTER PUMP STATION!

Next

Generator Operation

At the generator control panel, move the AUTO-OFF/RESET-MANUAL switch to MANUAL (RIGHT)



At this point, pump station should be operating on emergency generator power

If the transfer switch fails to switch to the EMERGENCY (generator) load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET, then turn to page 31 and follow the section: "Transfer Switch – Manual Override"

AS DESIRED: Enable station systems including water booster pumps and sewer pumps

Done

Generator Operation

To return to utility power

- Reduce the potential load on the station – Shut the pumps off
- Follow the booster pump station procedures to reduce the station load
- Move the main utility service breaker to ON
- *The transfer switch will sense utility power and transfer the station to the utility and then shut the generator down.*
- Enable the water booster pumps and sewer pumps as desired

Begin

**Rotate both pump
Hand-Off-Auto switches OFF**



**Move both pump disconnects
DOWN to OFF**



CAUTION! The water booster pump equipment has additional steps required to reduce the pump station load before switching over to GENERATOR power. REFER TO THE BOOSTER PUMP STATION!

Move the Main Disconnect UP to ON



Next

Generator Operation

When the transfer switch senses utility power, it will initiate the transfer back to utility. The generator will continue to run until the transfer is complete and the engine cool-down period has elapsed, then it shuts down.

At this point, the station will be running on utility power

If the transfer switch fails to switch back to the UTILITY load, move the generator's RUN-OFF/RESET-AUTO switch to OFF/RESET and then turn to page 31 and follow the section: "Transfer Switch – Manual Override"

AS DESIRED: Enable station systems including water booster pumps and sewer pumps

Done

Generator Operation

THE FOLLOWING PROCEDURE SHOULD ONLY BE PERFORMED BY A QUALIFIED ELECTRICAL WORKER & TRAINED ELECTRICIANS

Transfer Switch – Manual Override

Use extreme caution when working in the transfer switch. Make sure to use all the proper lockout procedures before opening the switch cabinet

Summary: Transfer Switch – Manual Override

1. Reduce the load from the pump station – shut both pumps off
2. Follow the booster pump station procedures to reduce the station load
3. Shut down/disable the generator
4. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
5. Open the transfer switch cabinet & perform a voltage check
6. Manually change the contacts to the desired mode (EMERGENCY or NORMAL)
7. Close the transfer switch cabinet
- 8. If transferring to emergency generator power**
 1. Close the generator disconnect (UP to ON)
 2. Move the generator control to RUN
 3. Leave the utility disconnect OPEN (OFF) *to avoid the transfer switch from trying to switch back to utility power*
 4. Enable station systems
- 9. If transferring to utility power**
 1. Move the service utility disconnect UP to ON
 2. Enable station systems

Next

Generator Operation

Begin

**Rotate both pump
Hand-Off-Auto switches OFF**



**Move both pump disconnects
DOWN to OFF**



CAUTION! The water booster pump equipment has additional steps required to reduce the pump station load before switching over to GENERATOR power. REFER TO THE BOOSTER PUMP STATION!

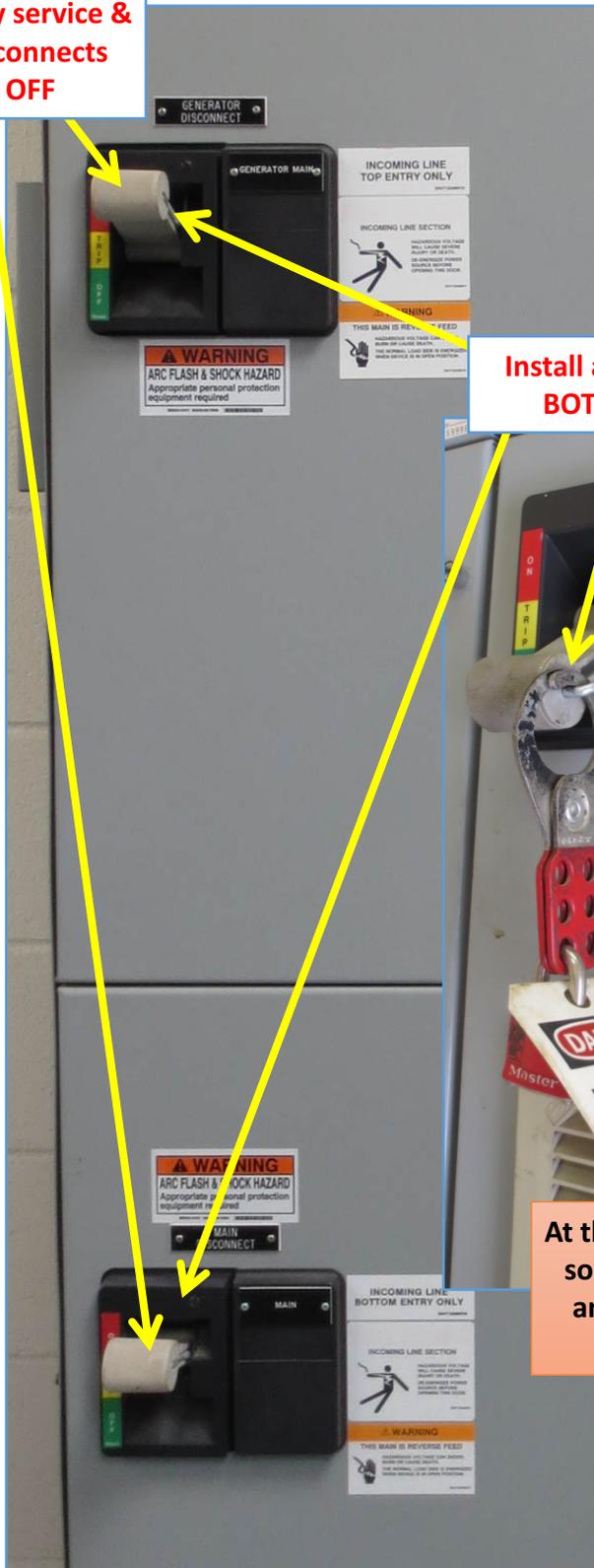
**At the generator control panel, move the
AUTO-OFF/RESET-MANUAL switch to OFF/RESET (Middle)**



Next

Generator Operation

**Move the utility service & generator disconnects
DOWN to OFF**

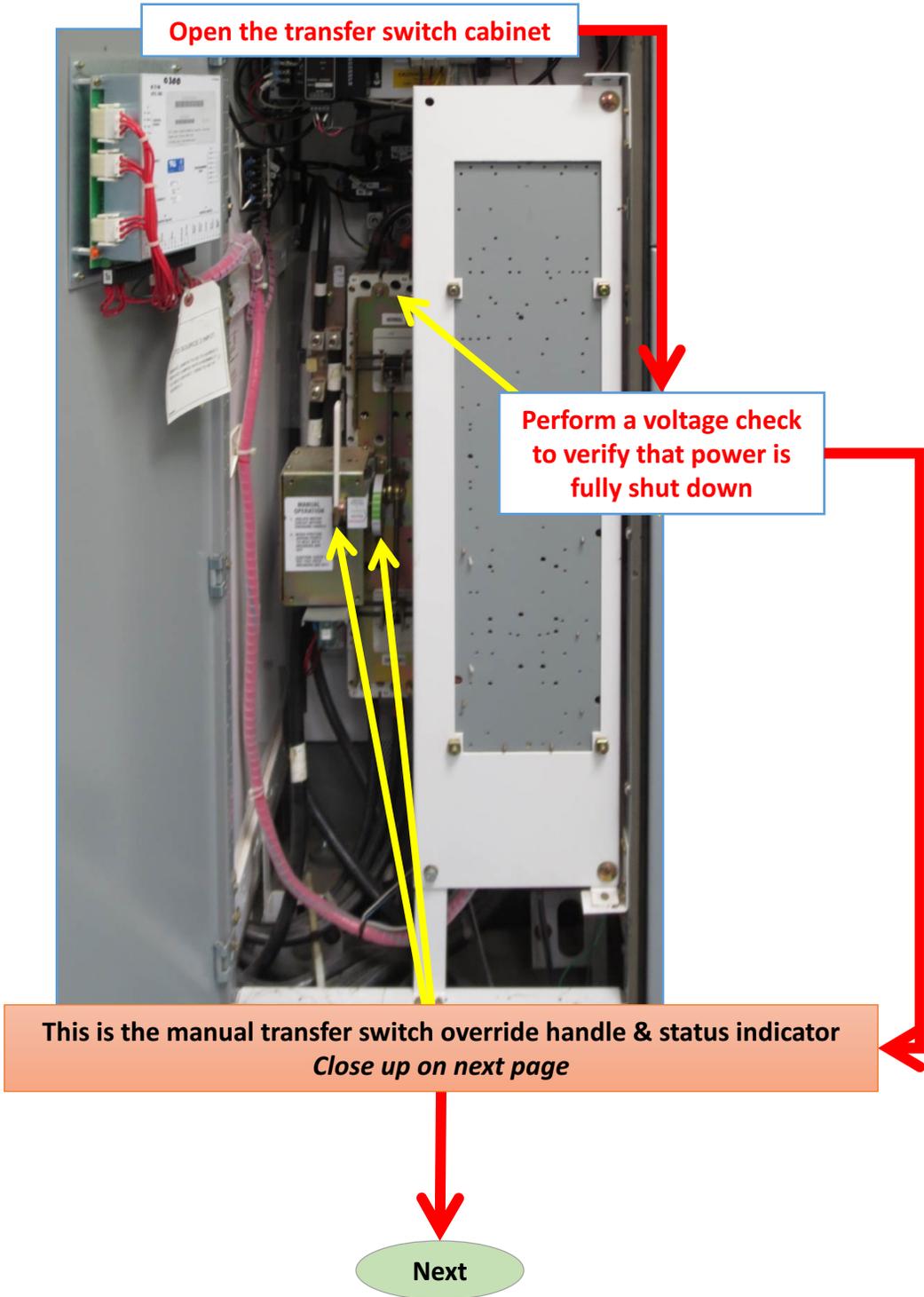


**Install a LOTO device on
BOTH disconnects**

**At this point, all electrical power
sources have been locked out
and work inside the transfer
switch can be done**

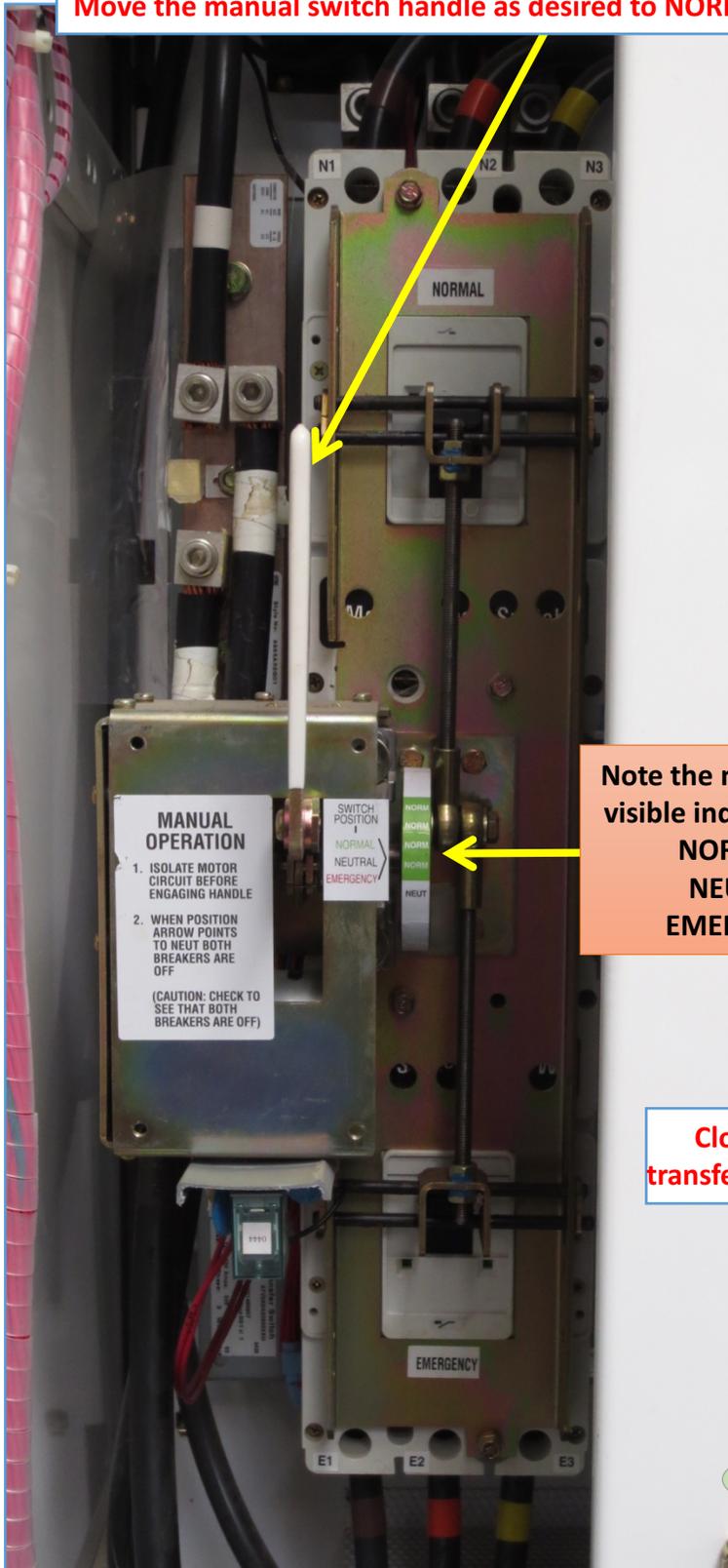
Next

Generator Operation



Generator Operation

Move the manual switch handle as desired to NORMAL or EMERGENCY MODE



Note the mode indicator. The value visible indicates its current setting:
NORM = Normal Utility
NEUT = Neutral = OFF
EMERGENCY = Generator

Close and secure the transfer switch cabinet door

Next

Generator Operation

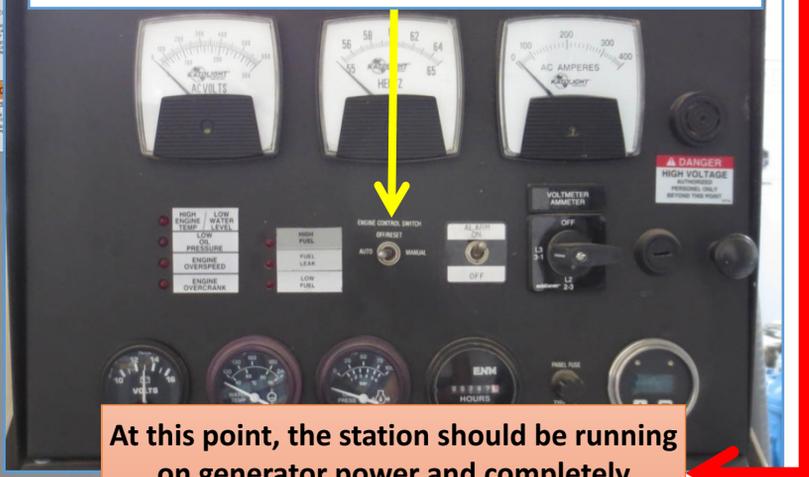
If transferring TO emergency generator power

Move the generator disconnect **UP** to **ON**
Leave the main disconnect **OFF** to avoid the switch from trying to switch to utility



TURN ON

At the generator control panel, move the **AUTO-OFF/RESET-MANUAL** switch to **MANUAL (RIGHT)**
The generator should start up at this point



At this point, the station should be running on generator power and completely independent of utility power

AS DESIRED: Enable station systems including water booster pumps and sewer pumps



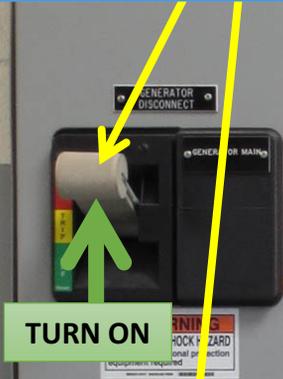
Leave OFF

Done

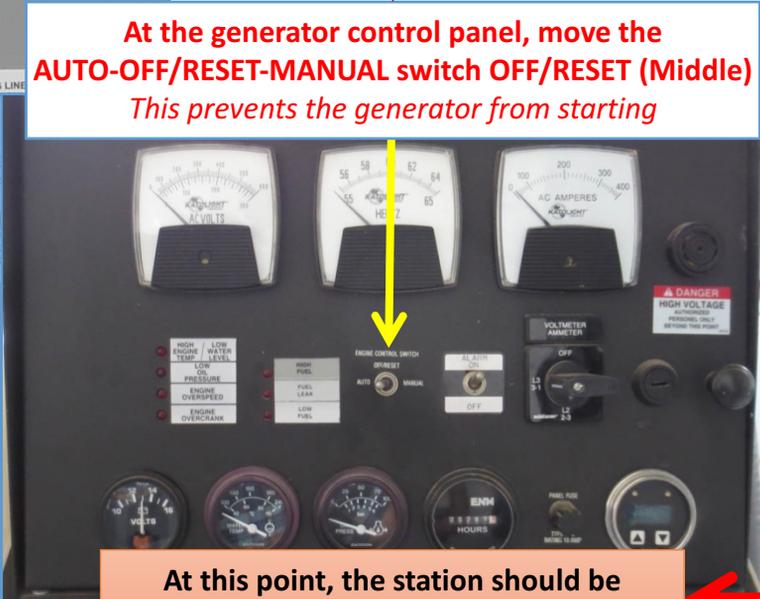
Generator Operation

If transferring TO utility power

Move the main utility disconnect UP to ON
The generator disconnect may be turned on or left off as desired

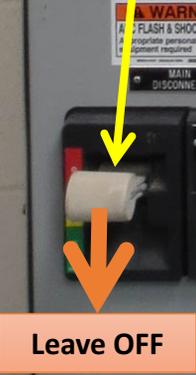


At the generator control panel, move the AUTO-OFF/RESET-MANUAL switch OFF/RESET (Middle)
This prevents the generator from starting



At this point, the station should be running on UTILITY power

AS DESIRED: Enable station systems including water booster pumps and sewer pumps



Done

Bypass to Downstream Manhole

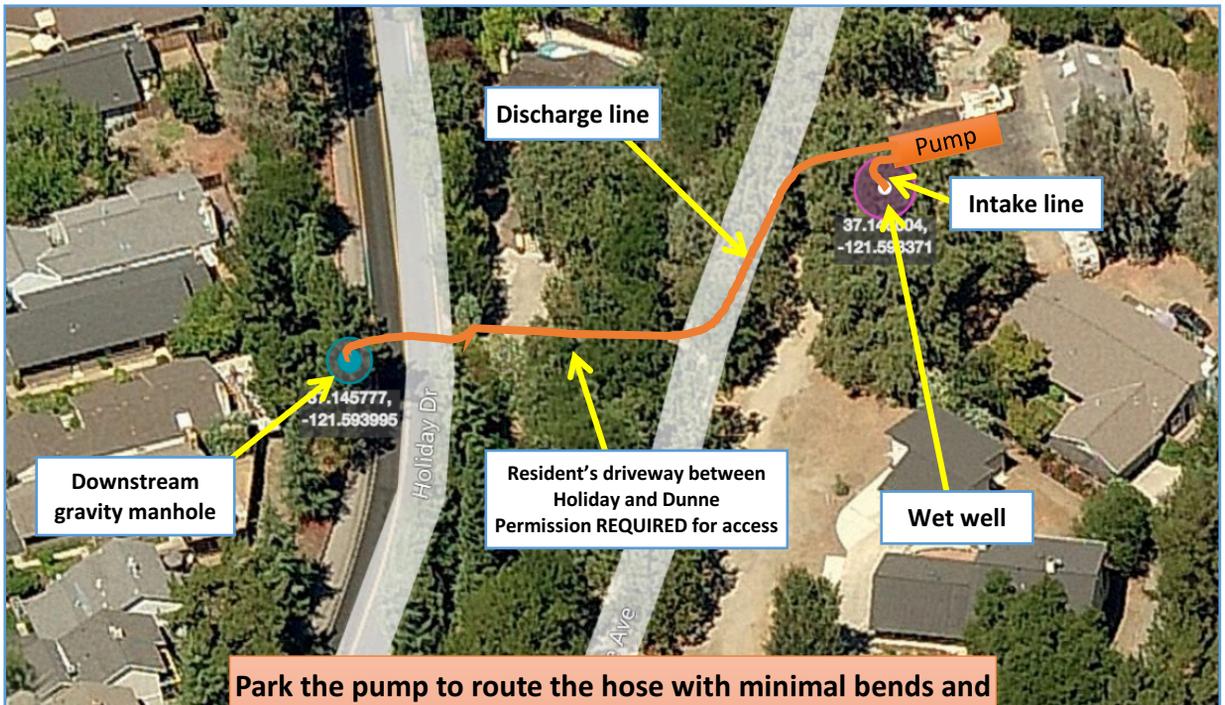
Procedure Summary

Configure the station for bypass:

Although a station bypass using a portable pump is possible (and detailed below), the long hold time makes regular tanker transfers a better option for most situations.

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump; route the hose to the nearest gravity manhole
- Verify all connections
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the pump down & relieve any residual pressure
 - Disconnect the hoses and clean up
 - Return the station to normal operations

Begin Procedure



Park the pump to route the hose with minimal bends and length whenever possible. NOTE: There will be multiple vehicle crossing points that will required attention



Next

Bypass to Downstream Manhole

Park & prepare the trash pump
Select a parking spot to limit hose bending

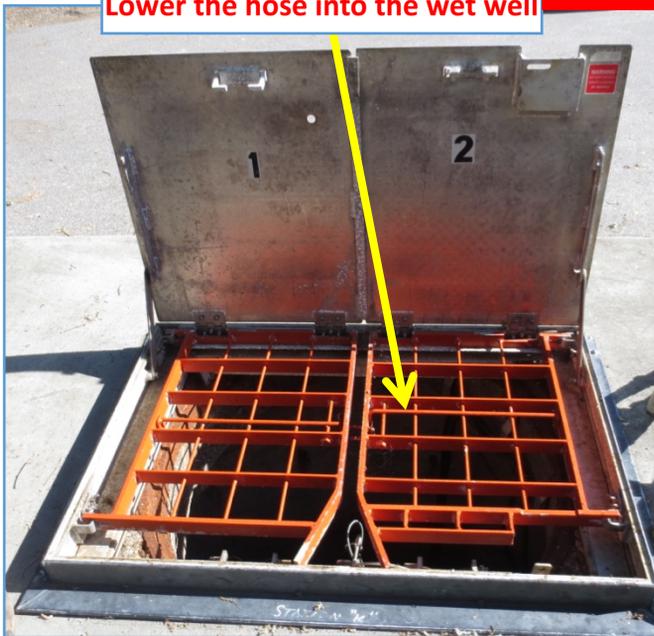
Set up appropriate traffic control devices as needed

Connect an intake hose to the pump suction; route it to the wet well

Lower the hose into the wet well

Typical trash pump

Next



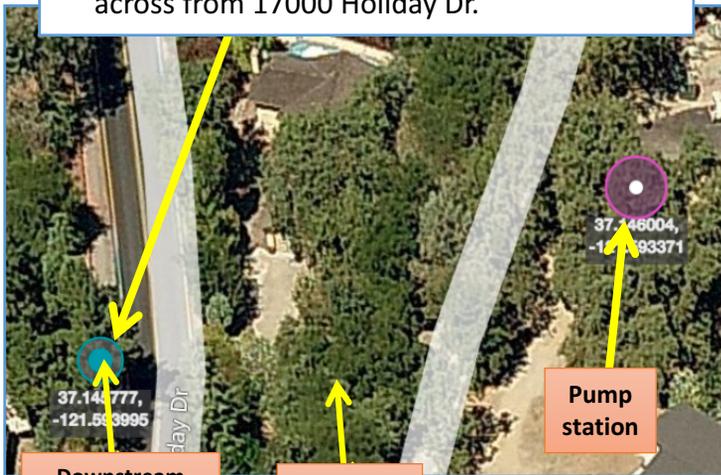
Bypass to Downstream Manhole

Connect an discharge hose to the pump discharge port



Route the discharge to the discharge point
Approx. Discharge: 37.145777, -121.593995

- Route the hose south on Dunne
- Next, use the driveway at 17000 Holiday Dr. to get to Holiday Dr. – You may need to arrange property access.
- Cross Holiday to get to the discharge MH
- Manhole is on the west side of the road across from 17000 Holiday Dr.



There will be multiple vehicle crossing points that will require attention!

Discharge point

Downstream gravity manhole discharge point

Driveway at 17000 Holiday

Pump station



Next

Bypass to Downstream Manhole

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing



Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Relieve any residual pressure in the discharge line
- Carefully disconnect, drain & stow the discharge line → ***Be careful to release any residual pressure and sewage back into the wet well to avoid a spill!***
- Close the downstream manhole
- Carefully disconnect, drain & stow the intake line
- Close the wet well
- Return the station to normal operations as desired
- Clean up and depart



Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan



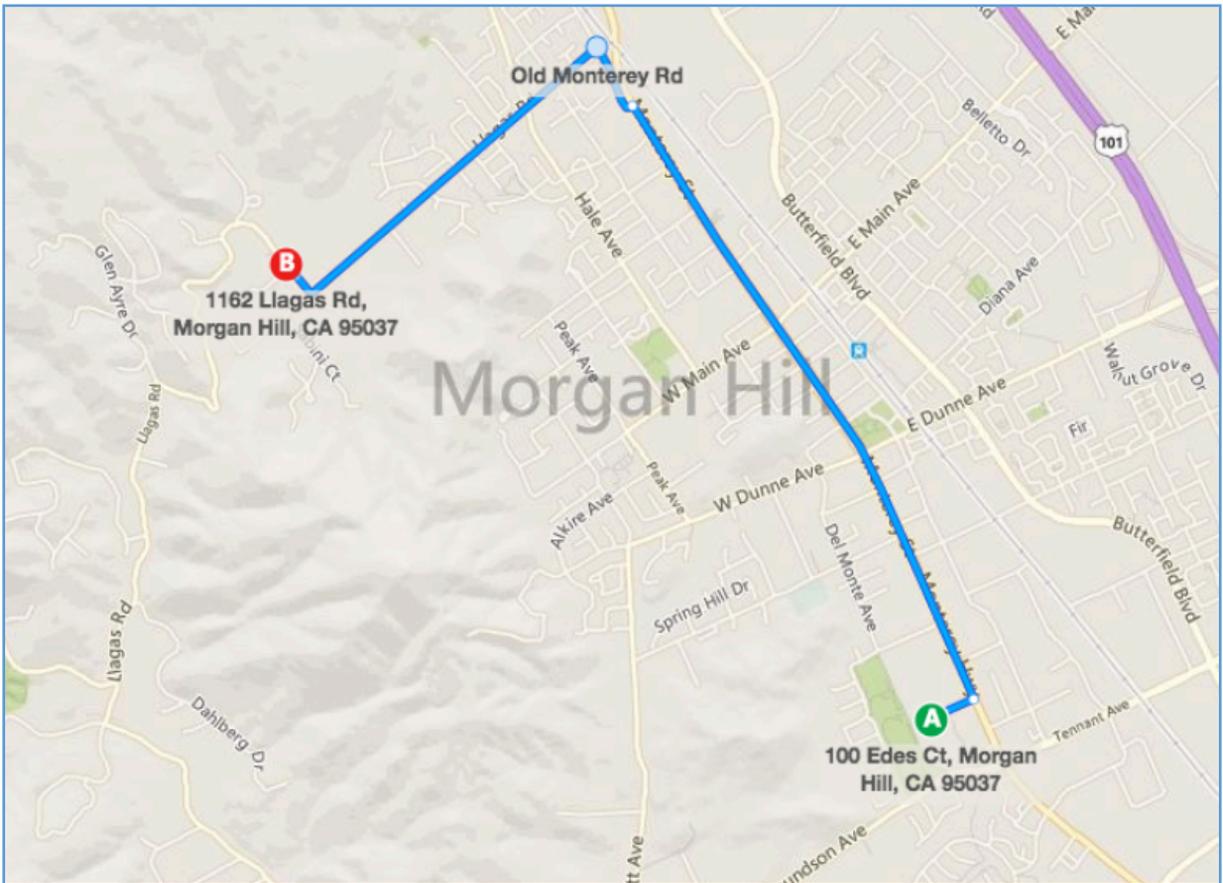
Pump Station PS-M

1162 Llagas Road

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
Spill Containment	15
Pump Station Power Map	16
Pump Station Control System	17
Lockout/Tagout Procedures	21
Generator Operation	25
Bypass to Force Main	30
Contact Information	34
System Map	38

Pump Station Technical Information

Name	PS-M – 1162 Llagas Road Pump Station
Address	1162 Llagas Road, Morgan Hill, CA 95037
Lat., Long.	37.133606, -121.680185
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn left onto Old Monterey Rd. Turn left onto Llagas Rd. Turn right to stay on Llagas Rd. Pump station is approx. ¼ mile on your left.



Pump Station Technical Information

Station Information		
Wet well dimensions & capacity	Tank 1: 4' diameter x 12' deep; 1,128 gallons Total Capacity: 1,128 gallons	
Est. hold time (dry weather)	4 hours	
Low point (likely overflow point)	Manhole at pump station Approx. GPS: 37.156819, -121.608158	
Upstream pump station(s)	None. Gravity only.	
Downstream pump station	WWTP	
Forcemain Data	6" x 936'	
Discharge location	37.131633, -121.678048	
Pump Capacities		
Pump	Motor & Pump	Capacity
#1	Flygt 3102/463, 5hp, 240v 3-phase	89 gpm
#2	Flygt 3102/463, 5hp, 240v 3-phase	89 gpm
Station Power		
Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038075
	PG&E Meter #	1009607916
	PG&E Outage Block	3
	Priority	Sewer pump station
Backup Generator	The station is not equipped with a permanently installed backup generator, however it is equipped with a manual transfer switch and a quick connect for a portable generator	
Station Bypass Port Configuration	The station is equipped with a force main bypass port.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

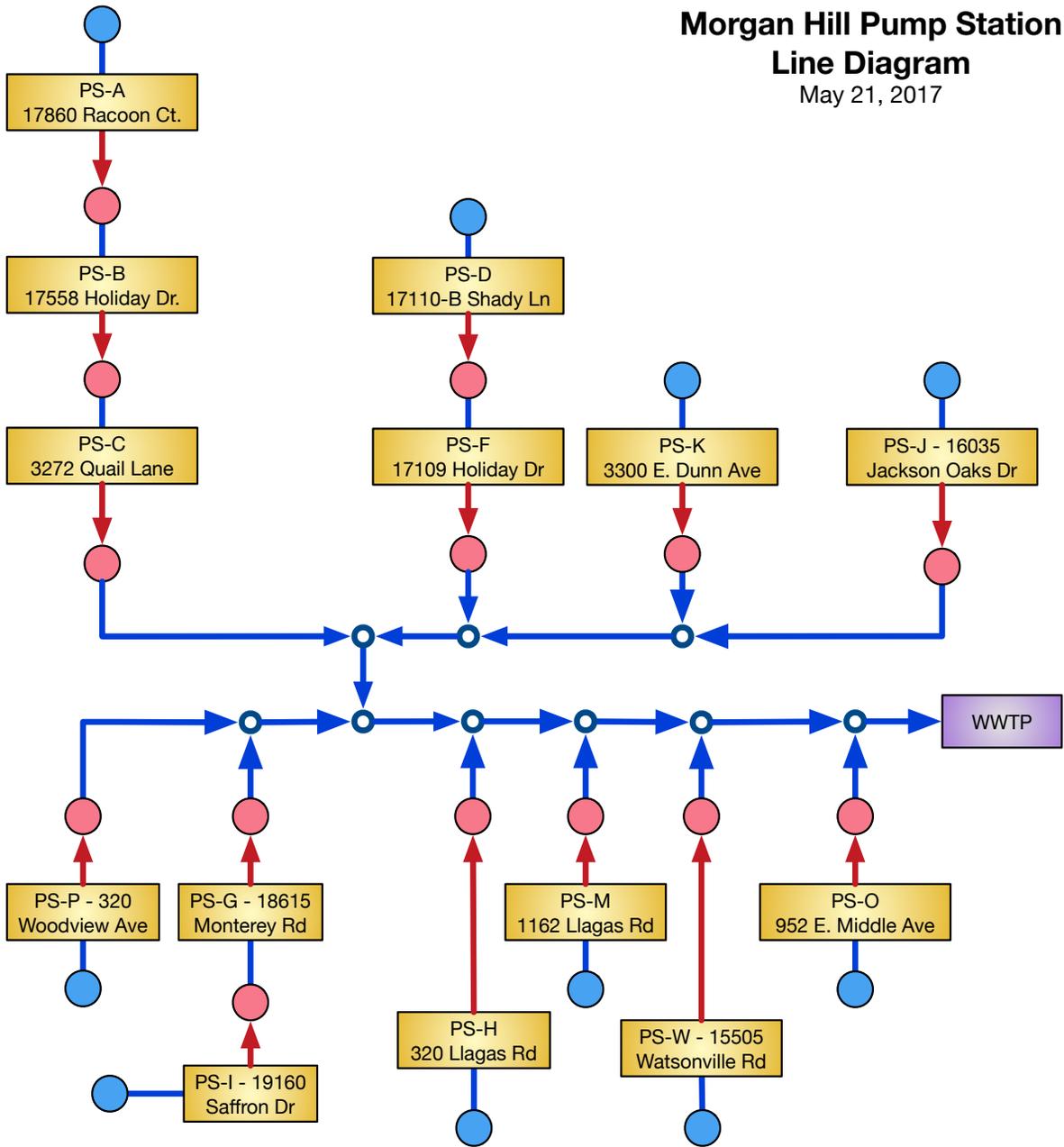
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

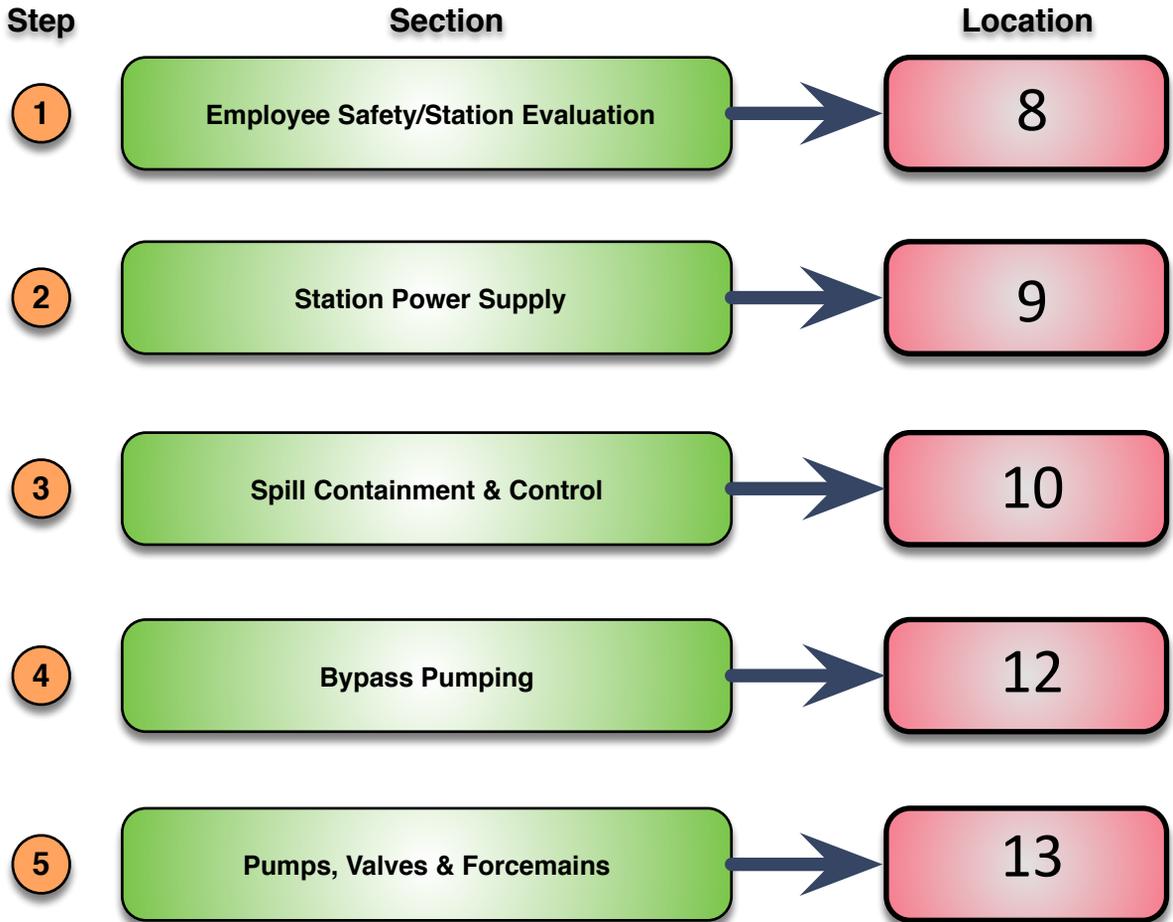
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
Gravity Feed Only	Force main & flow direction
Force Main Discharge	Gravity line & flow direction
Force Main Junction	PS Morgan Hill managed PS
Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide Decision Tree Index



LEGEND



Initial Question



Decision Point



Page-To-Page Link



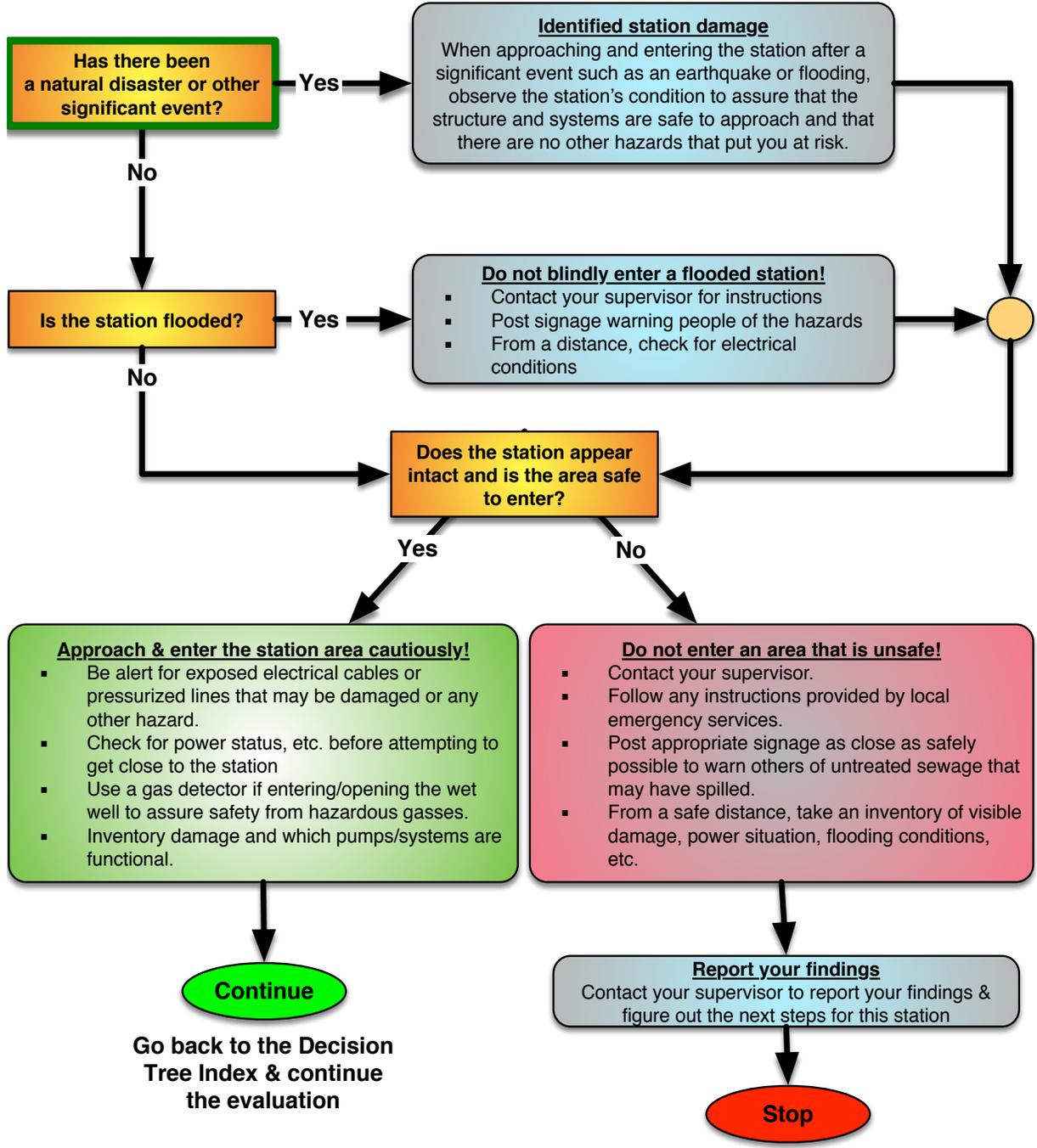
Task/Direction Item



Sequence Merge (Watch arrows for flow direction)

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

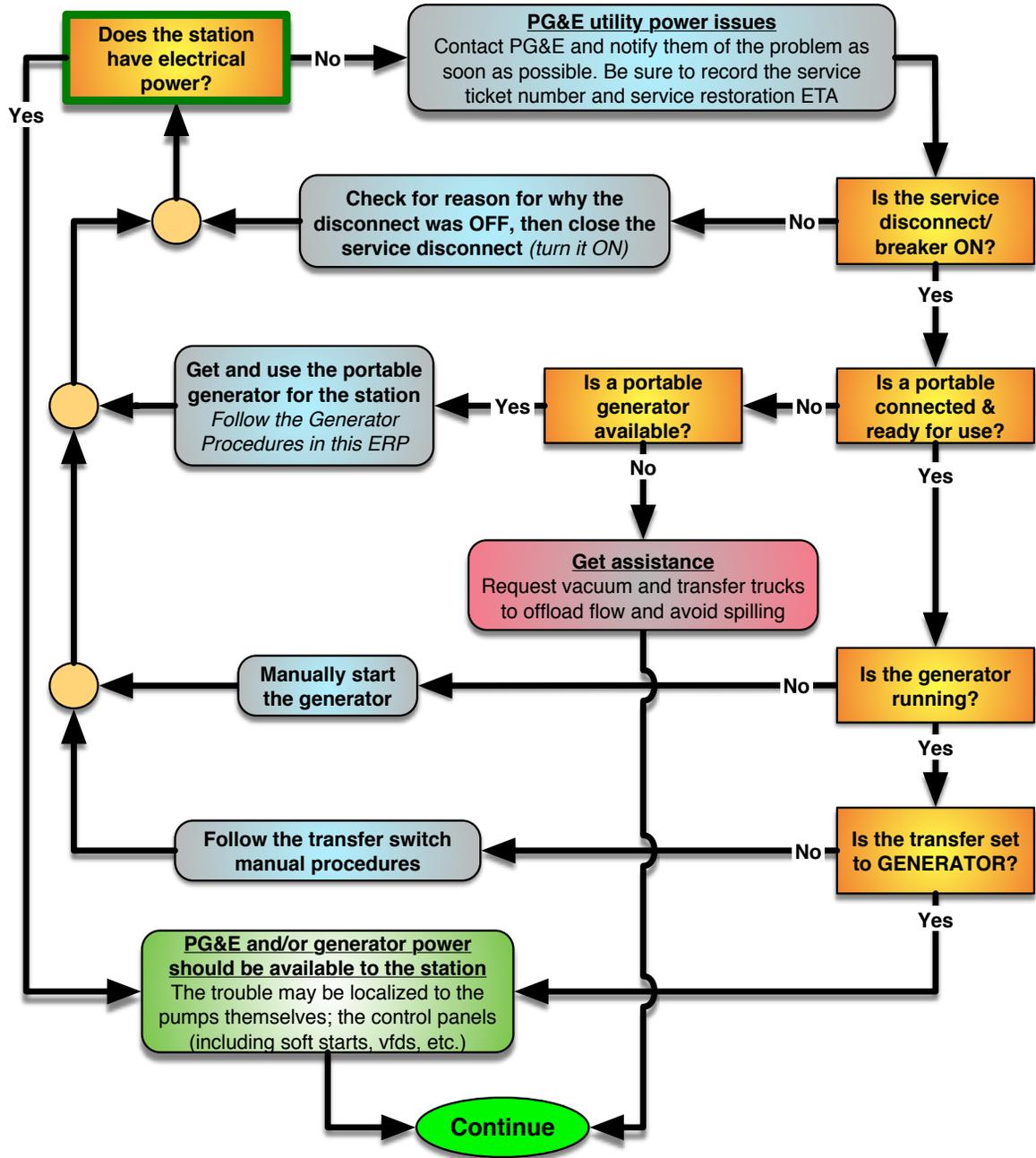


LEGEND

- Initial Question
- Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply



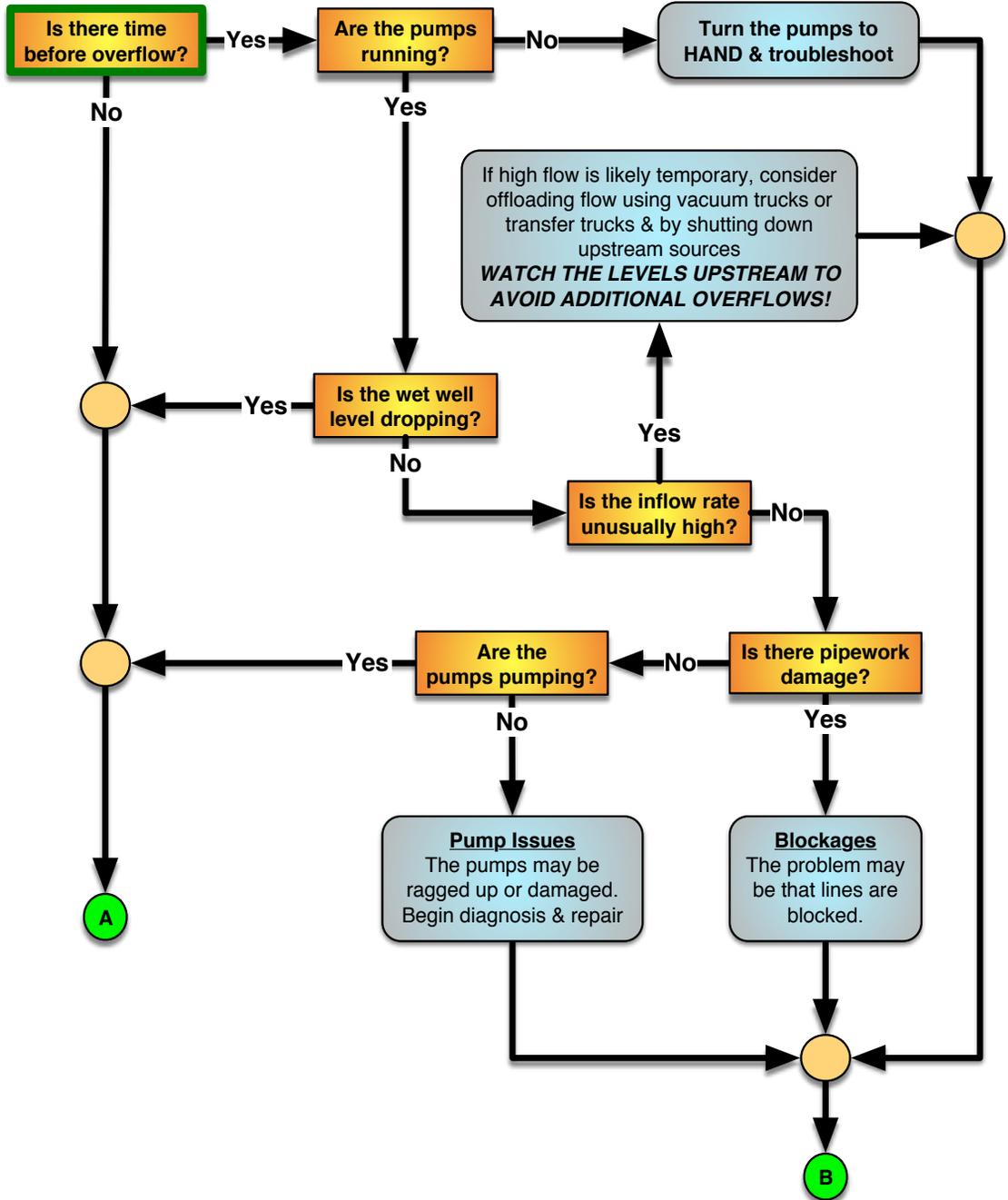
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

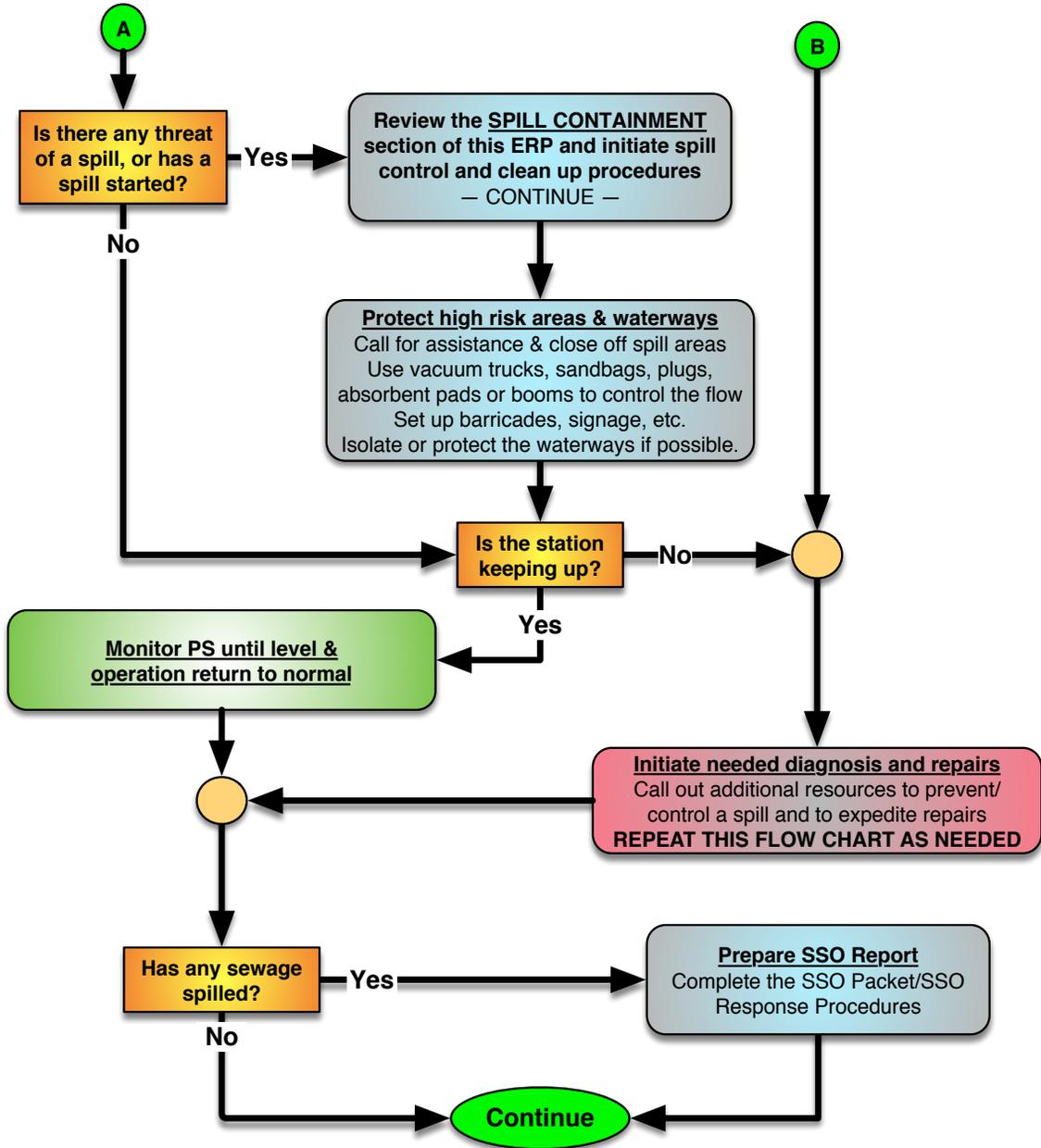
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ● Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - *Continued*



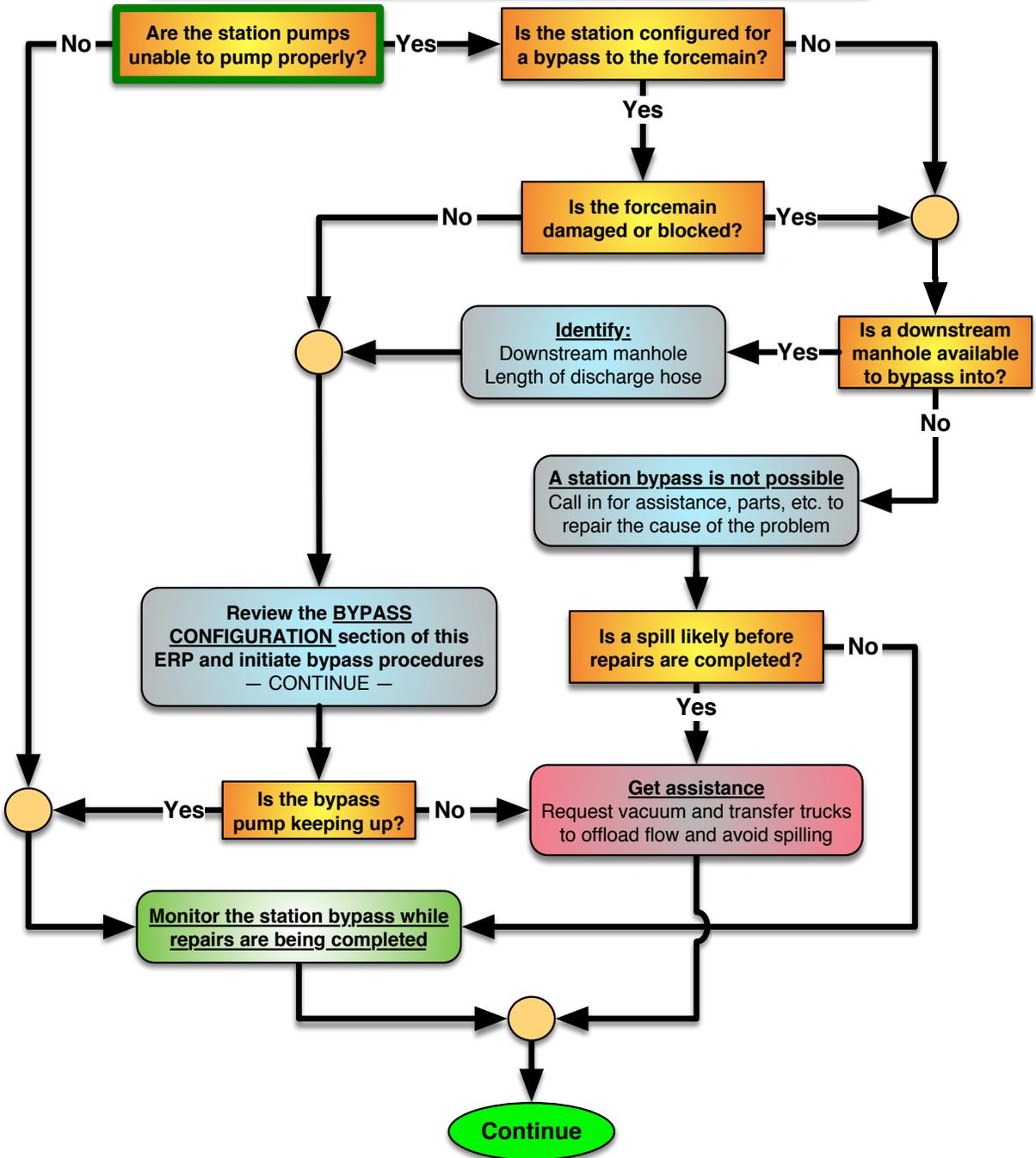
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



Go back to the Decision Tree Index & continue the evaluation

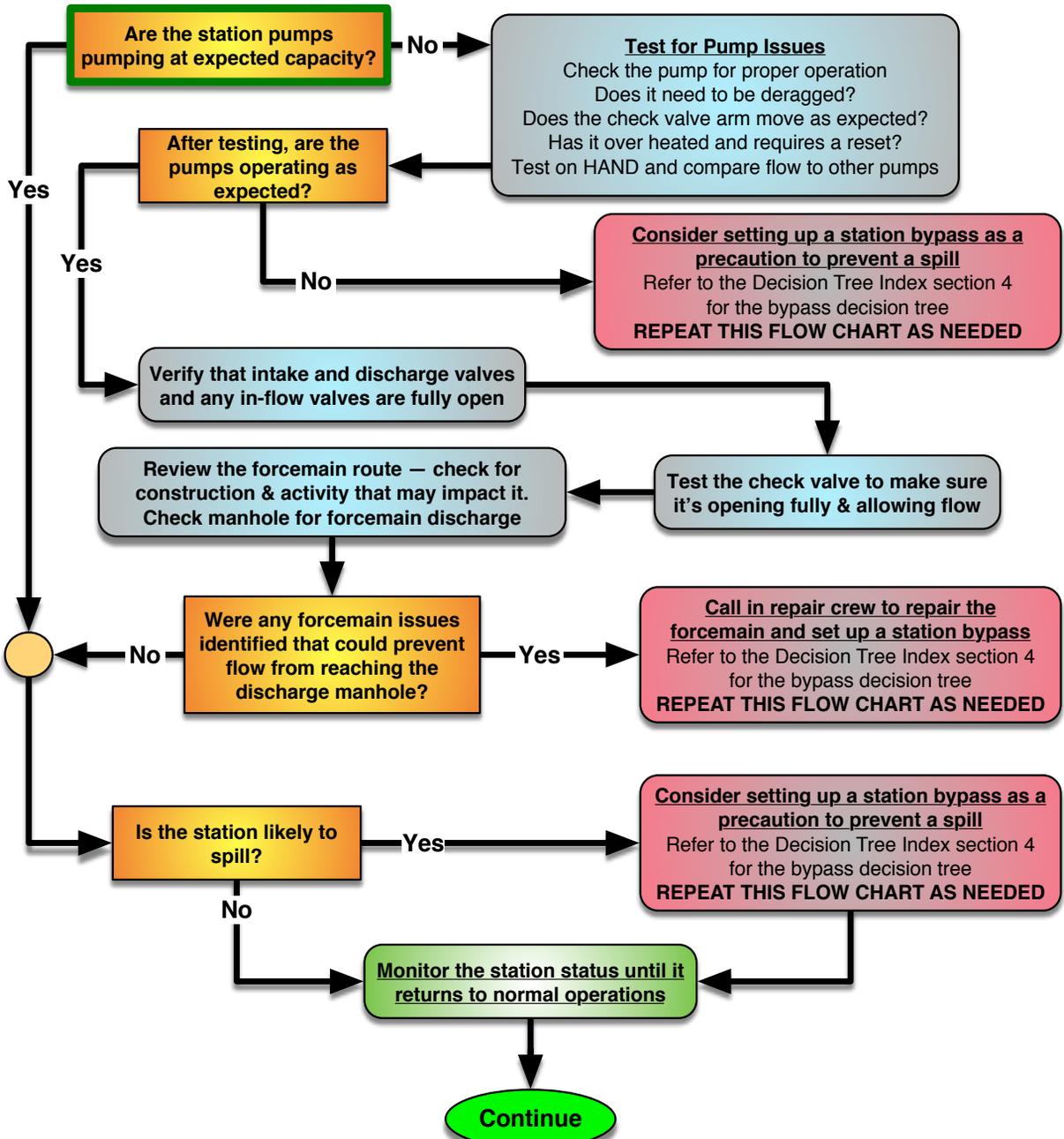
LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5

Pump Station Emergency Response Guide Pumps, Valves & Forcemains



Go back to the Decision Tree Index & continue the evaluation

LEGEND



Initial Question



Page-To-Page



Sequence Merge



Decision Point



Task/Direction Item

Spill Notification Procedures

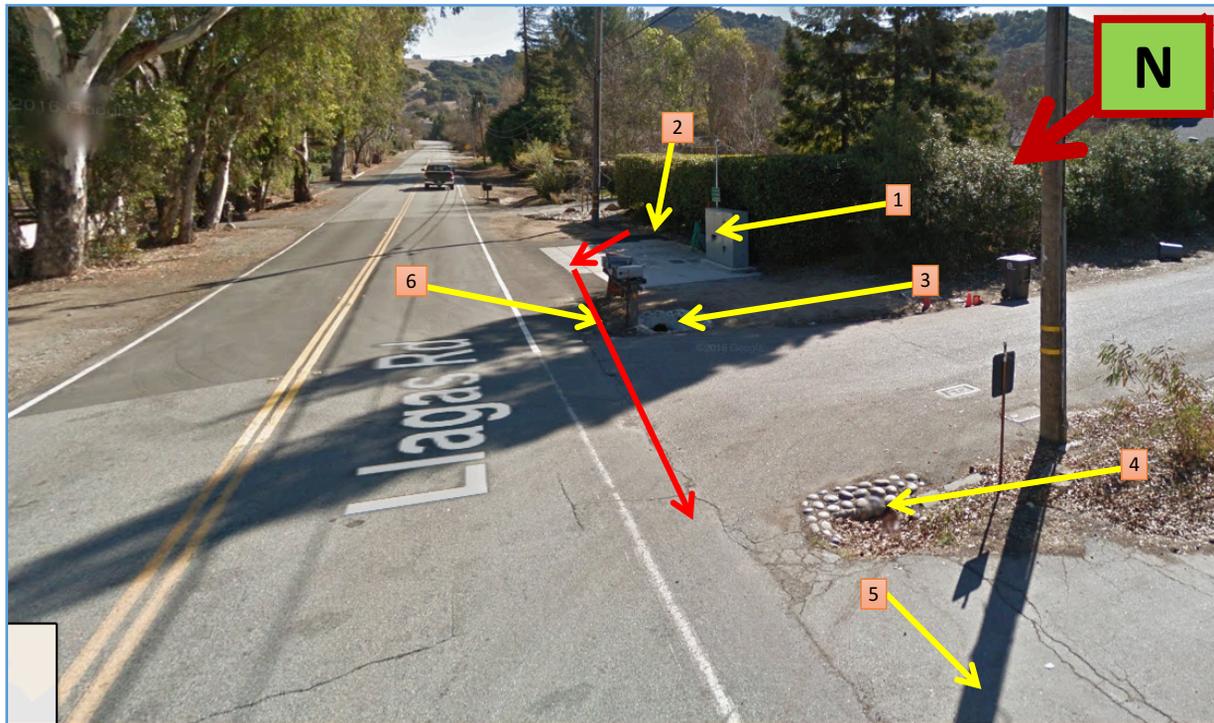
Pump Station M is located in the Jurisdiction of the
Central Coast Regional Water Control Board (#3)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

See the Contact Information Section for contact information
Page 34

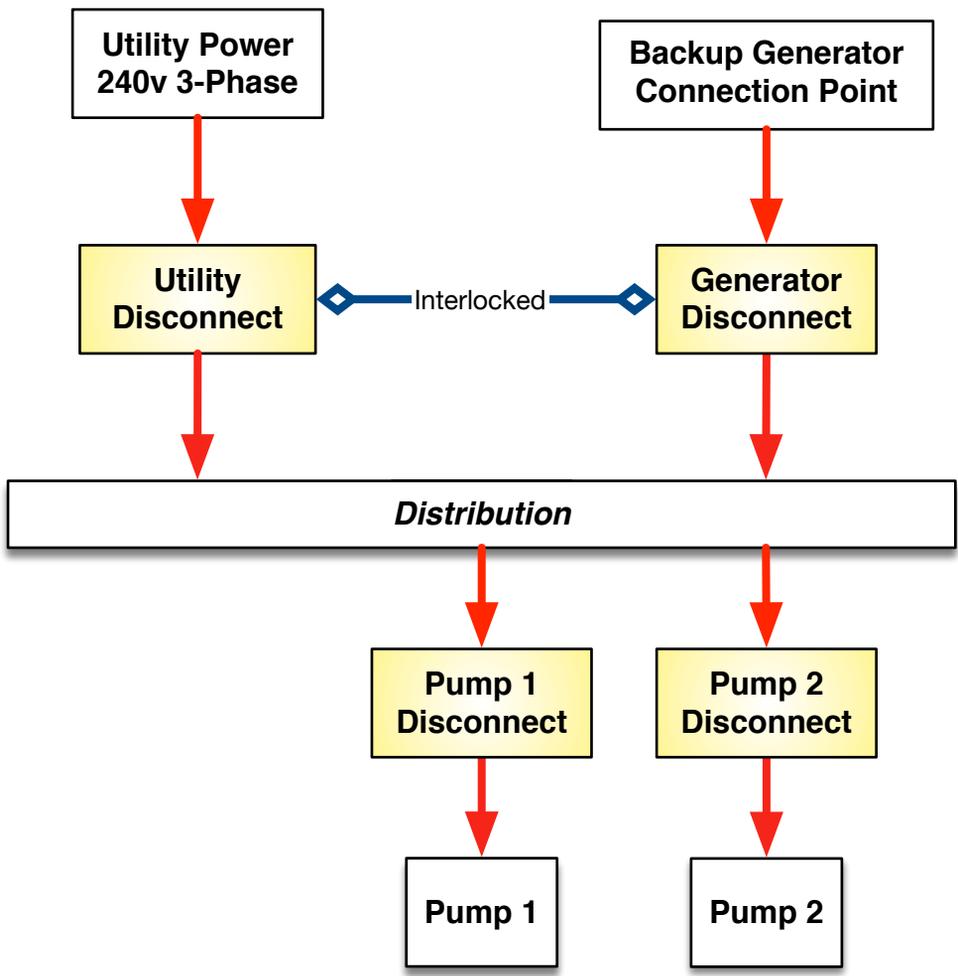
Spill Containment



Potential SSO Impact on State Water

	Type	Position from low manhole	Containment
1	Pump station	~15' NW	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low point manhole	--	
3	Storm Drain Inlet	~55' NW	
4	Storm Drain Inlet	~85' NW	
5	Drainage ditch (continues NW on Llagas)	~100' NW	
7	Expected flow direction from system low point (RED ARROWS ON MAP)		

Pump Station Power Map



LEGEND

— 240v 3-Phase → — 120v/240v 1-Phase → LOTO Point

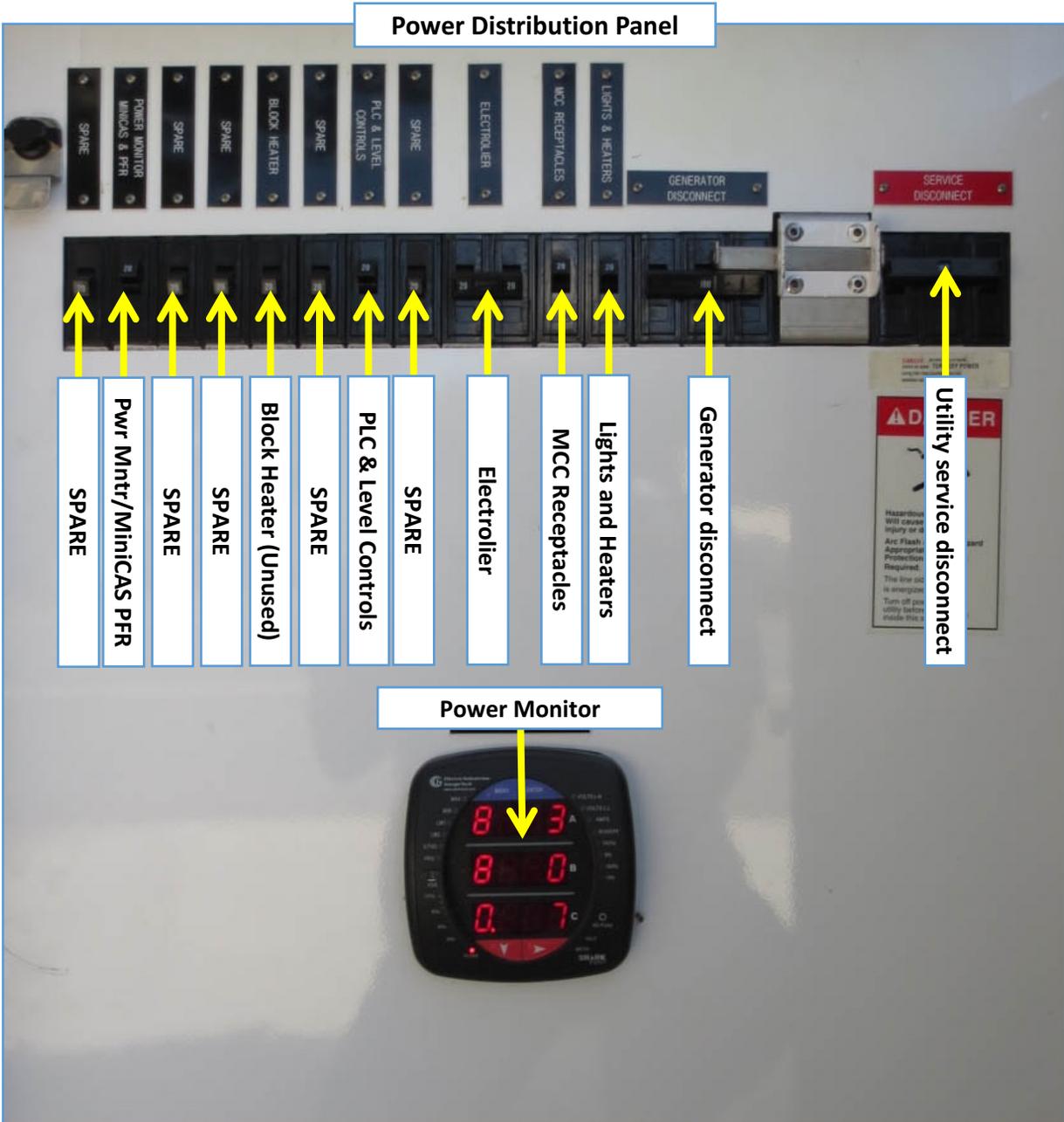
Done

Pump Station Control System



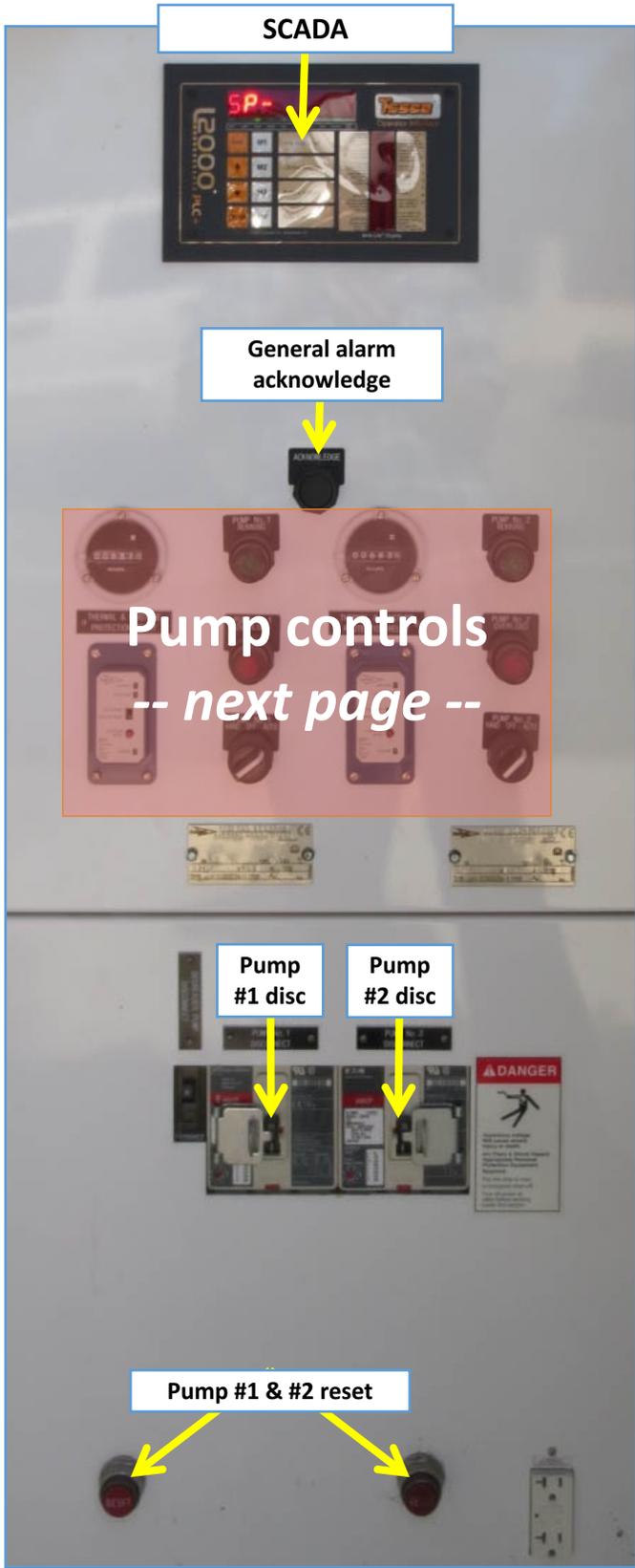
Next

Pump Station Control System



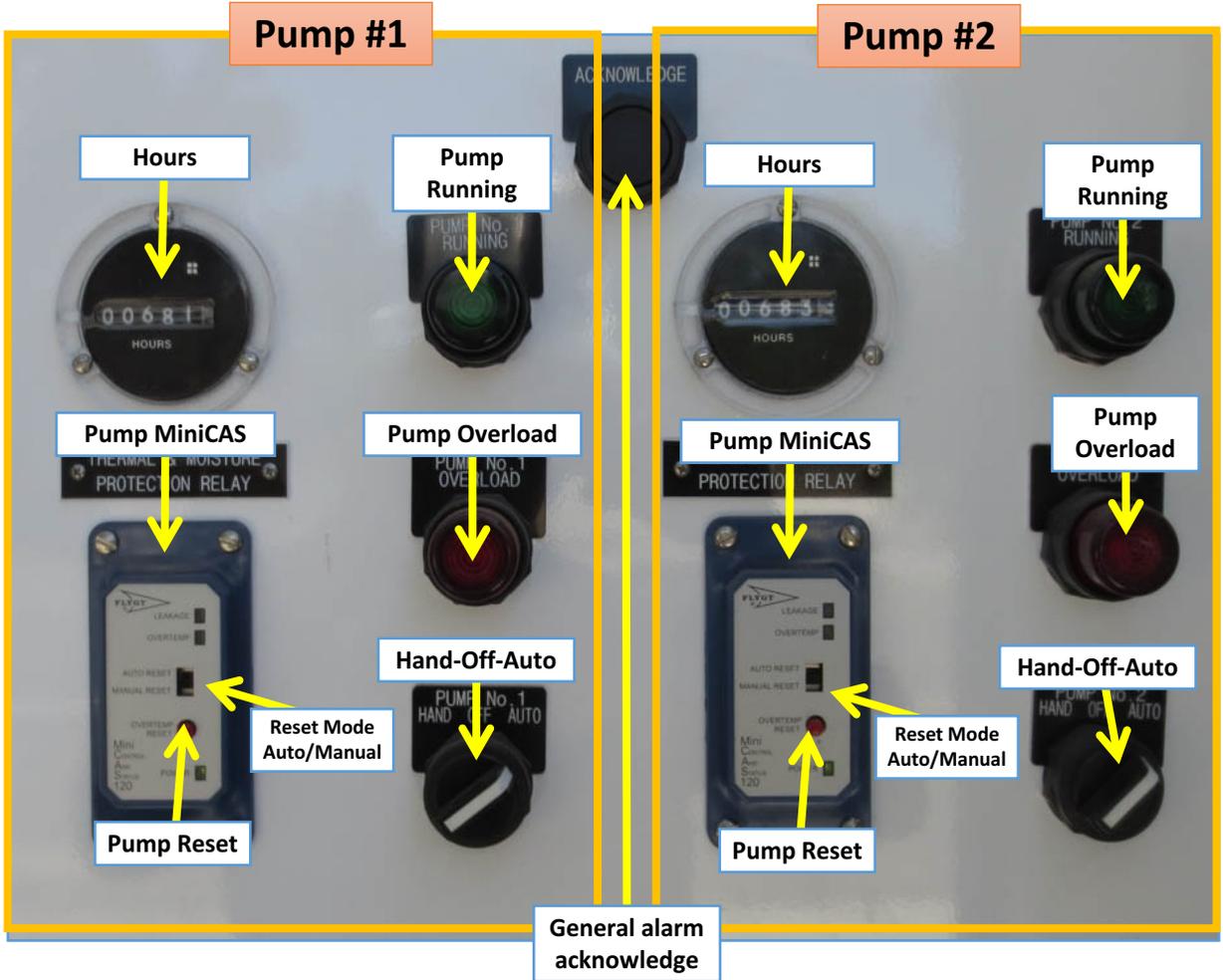
Next

Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and potentially by portable backup generator. Care must be taken to disable all energy sources.

Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

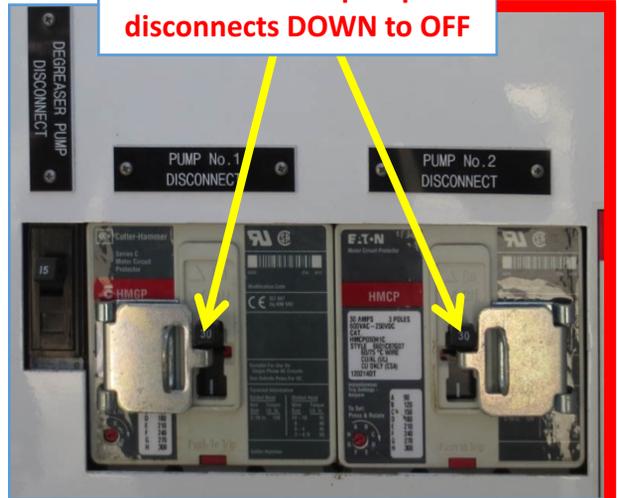
1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down (if attached) and disable the generator
4. Move the utility service disconnect to OFF & install LOTO device & tag
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



Next

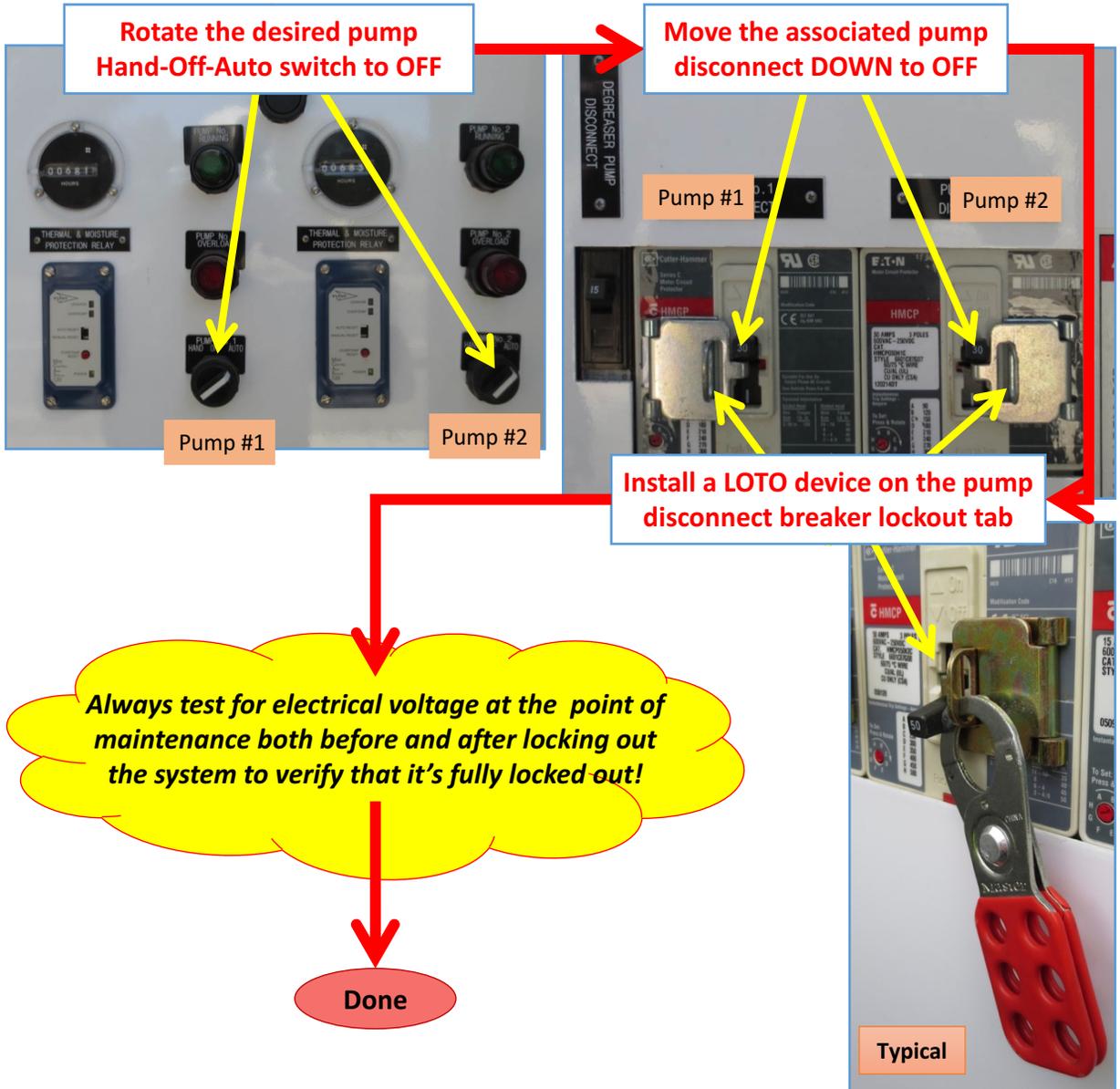
Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

On control panel for desired pump

1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel



Lockout/Tagout Procedures

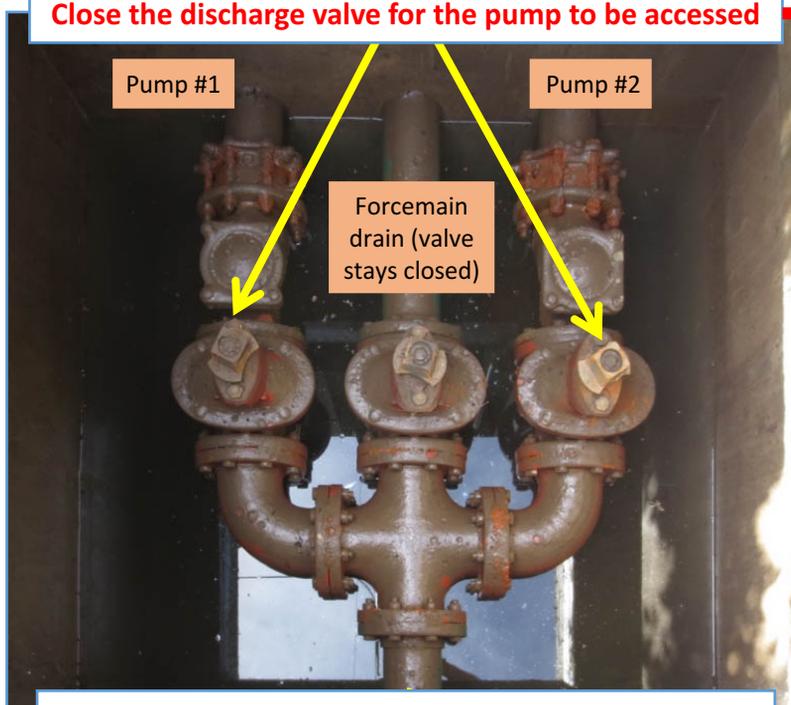
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Generator Operation

Portable Generator Connection & Operation

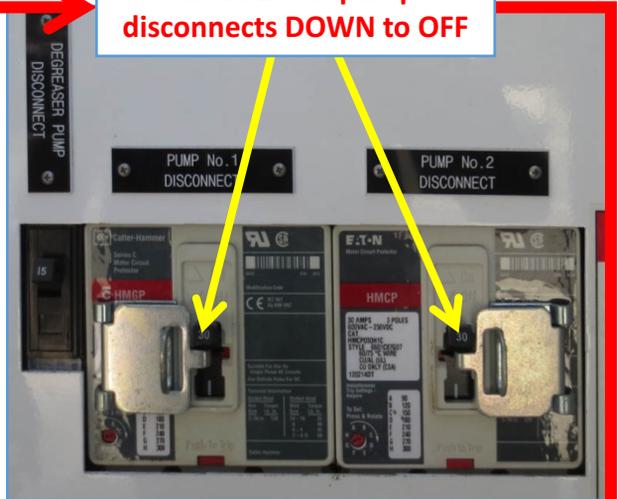
- Reduce the potential load on the station – Shut pumps off
- Shut the utility service disconnect OFF
- Unlock and move the manual transfer switch to GENERATOR
- Connect the generator
- Start the generator & then turn the generator output breaker ON
- Enable the pumps as desired

Begin

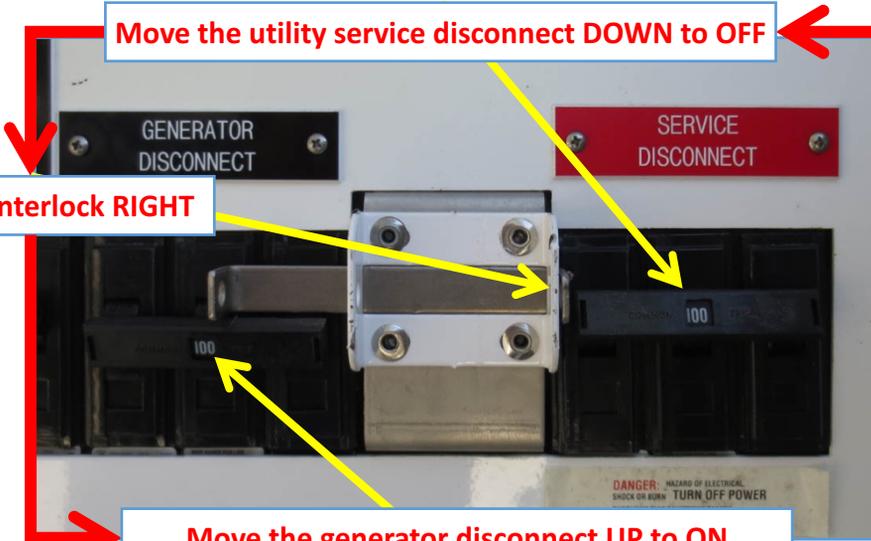
Rotate BOTH pump
Hand-Off-Auto switches to OFF



Move BOTH pump
disconnects DOWN to OFF



Move the utility service disconnect DOWN to OFF



Slide the interlock RIGHT

Move the generator disconnect UP to ON

Next

Generator Operation

This station requires 240v 3-phase power
Be sure the generator is appropriately sized and configured for use



Next

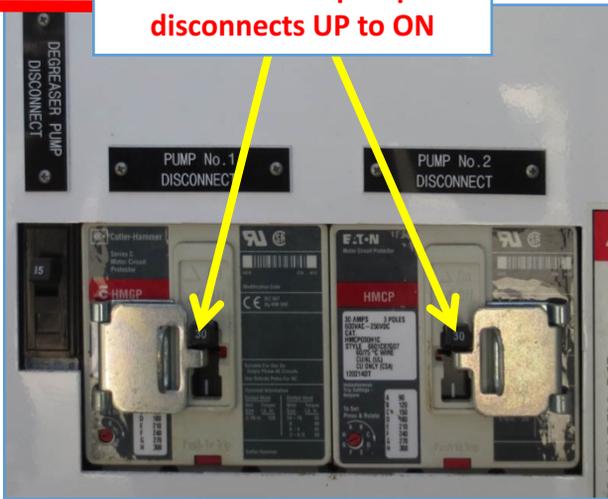
Generator Operation

AS DESIRED: Enable station systems

Rotate BOTH pump Hand-Off-Auto switches to HAND or AUTO as desired



Move BOTH pump disconnects UP to ON



At this point, the station should be running on generator power and completely independent of utility grid power

Done

Generator Operation

To return to utility power

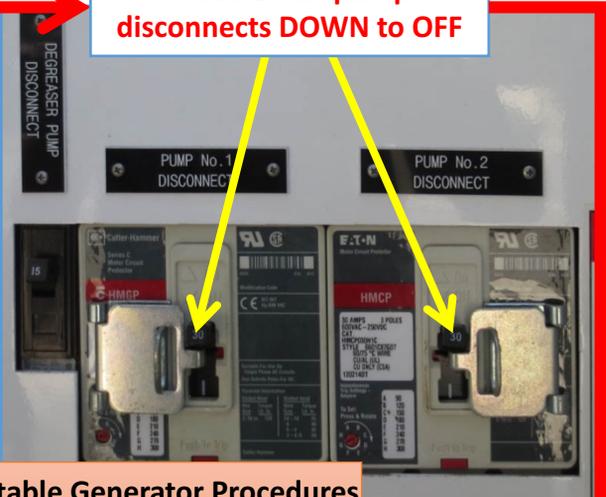
- Reduce the potential load on the station – Shut pumps off
- Shut the generator OFF & disconnect the generator
- Unlock and move the manual transfer switch to UTILITY/PG&E POWER
- Move the main utility service breaker to ON
- Enable the pumps as desired

Begin

Rotate BOTH pump Hand-Off-Auto switches to OFF



Move BOTH pump disconnects DOWN to OFF



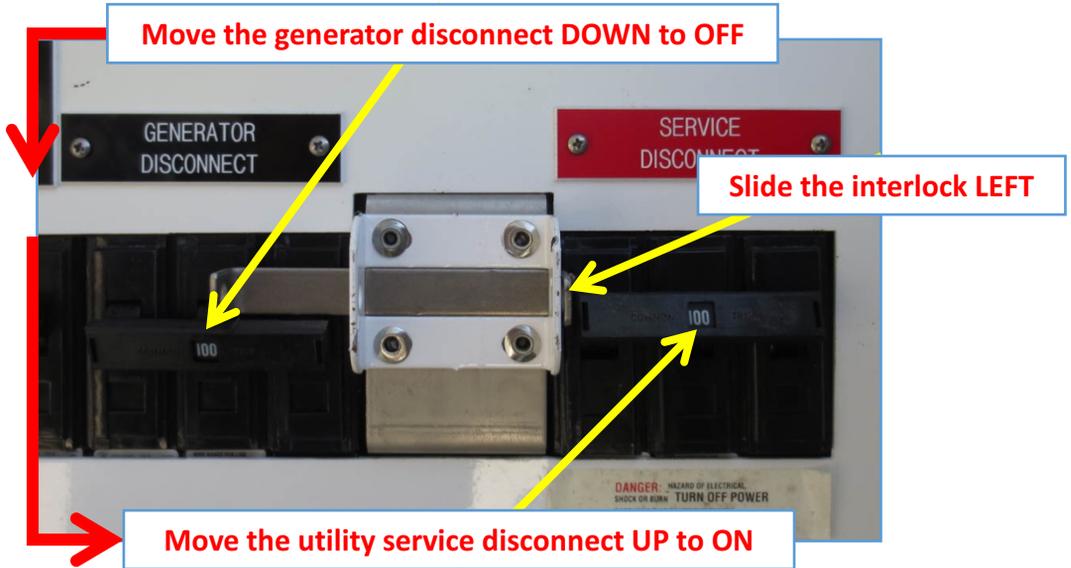
Follow the appropriate Portable Generator Procedures for shut down and disabling the portable generator
→ Once it's fully stopped, continue

Disconnect the portable generator from the emergency generator power port

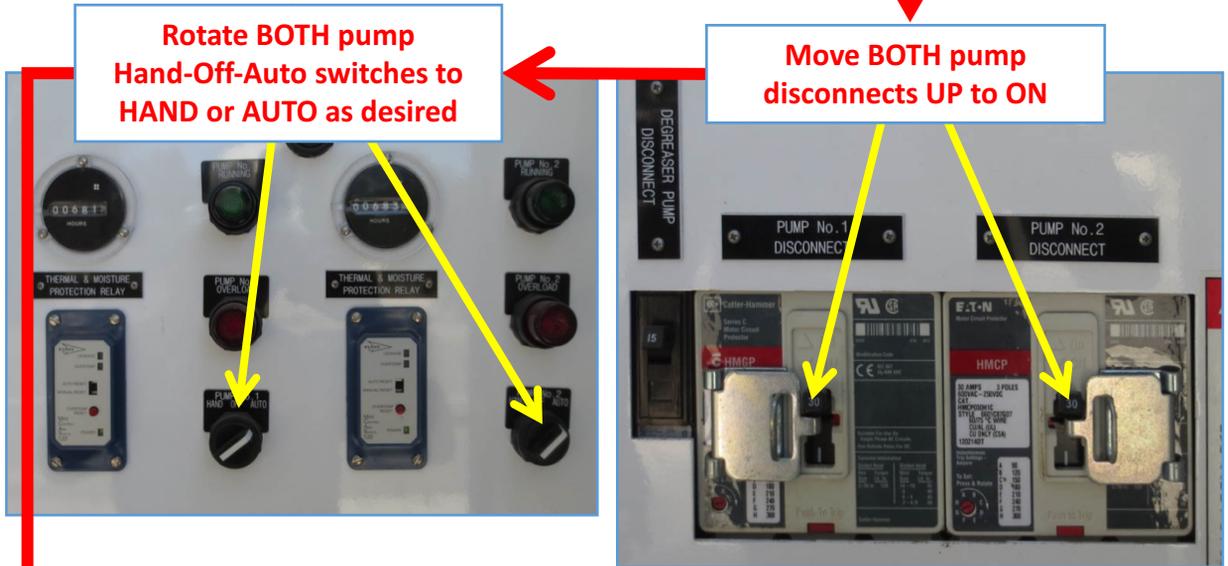


Next

Generator Operation



AS DESIRED: Enable station systems



At this point, the station should be running on utility power

Done

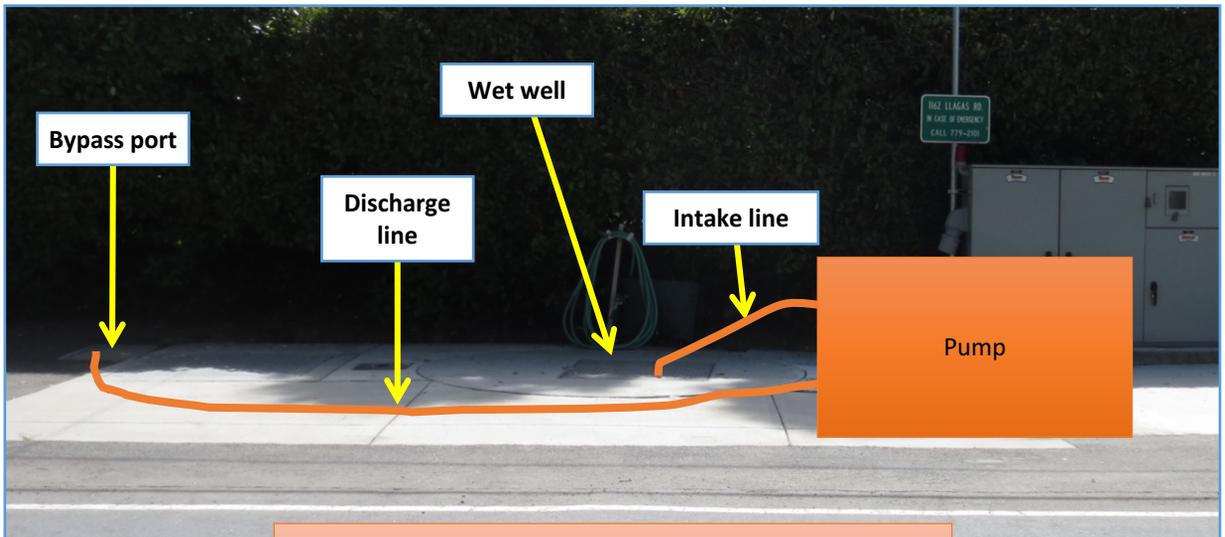
Bypass to Force Main

Procedure Summary

Configure the station for bypass:

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves & verify that the bypass valve is closed
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the bypass port
- Verify all connections and then open the bypass valve
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure using the force main drain valve.
 - Disconnect the hoses and clean up
 - Open the valves needed to return to normal operations

Begin Procedure



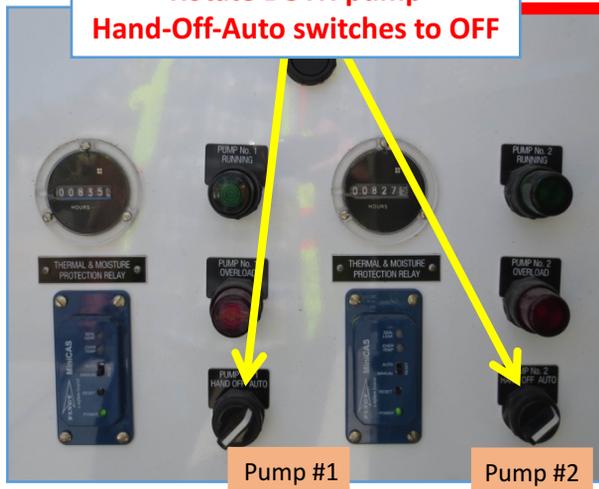
Park the pump to route the hose with minimal bends and length whenever possible.

Next

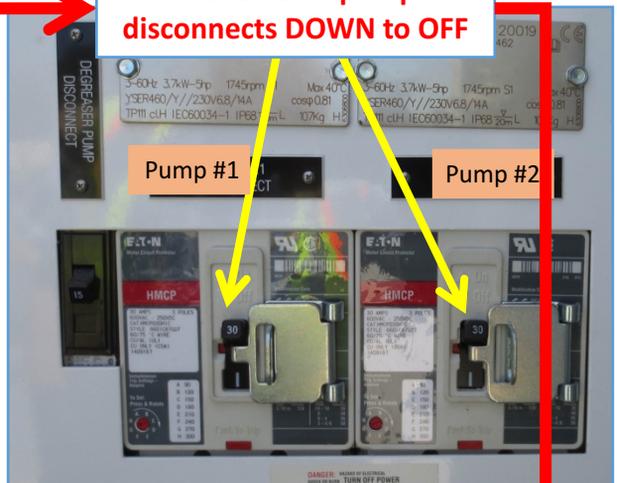
Bypass to Force Main

Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

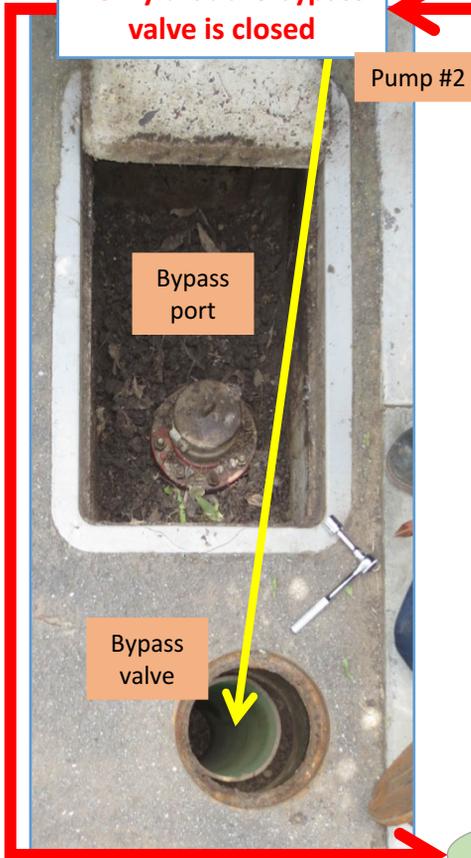
Rotate BOTH pump Hand-Off-Auto switches to OFF



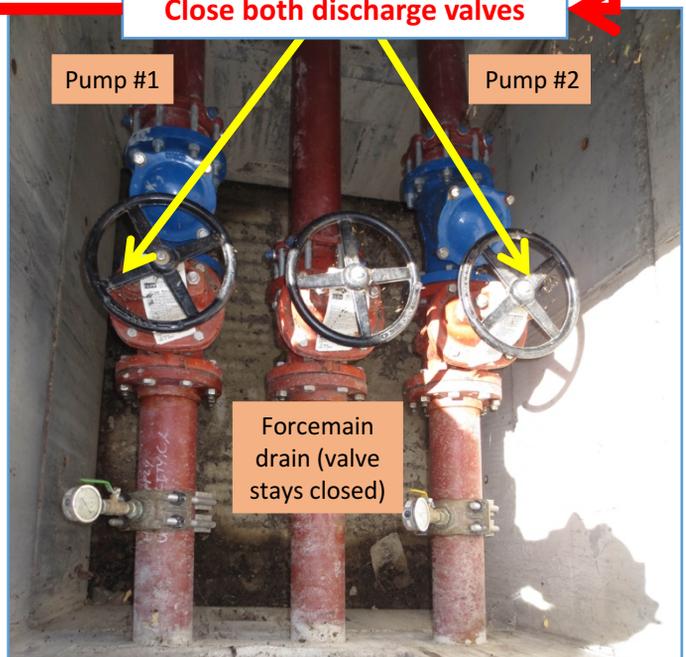
Move BOTH pump disconnects DOWN to OFF



Verify that the bypass valve is closed



Close both discharge valves



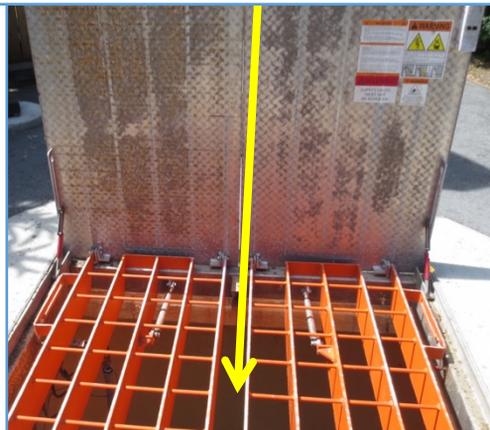
Next

Bypass to Force Main

Connect a suction hose with strainer-end to the intake port



Lower the suction hose into the wet well



It's good practice to use a strainer end on the suction hose whenever possible

Connect a hose to the pump discharge port and attach it to the bypass port



Verify all hose connections

Open the bypass port

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure using the force main drain valve in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

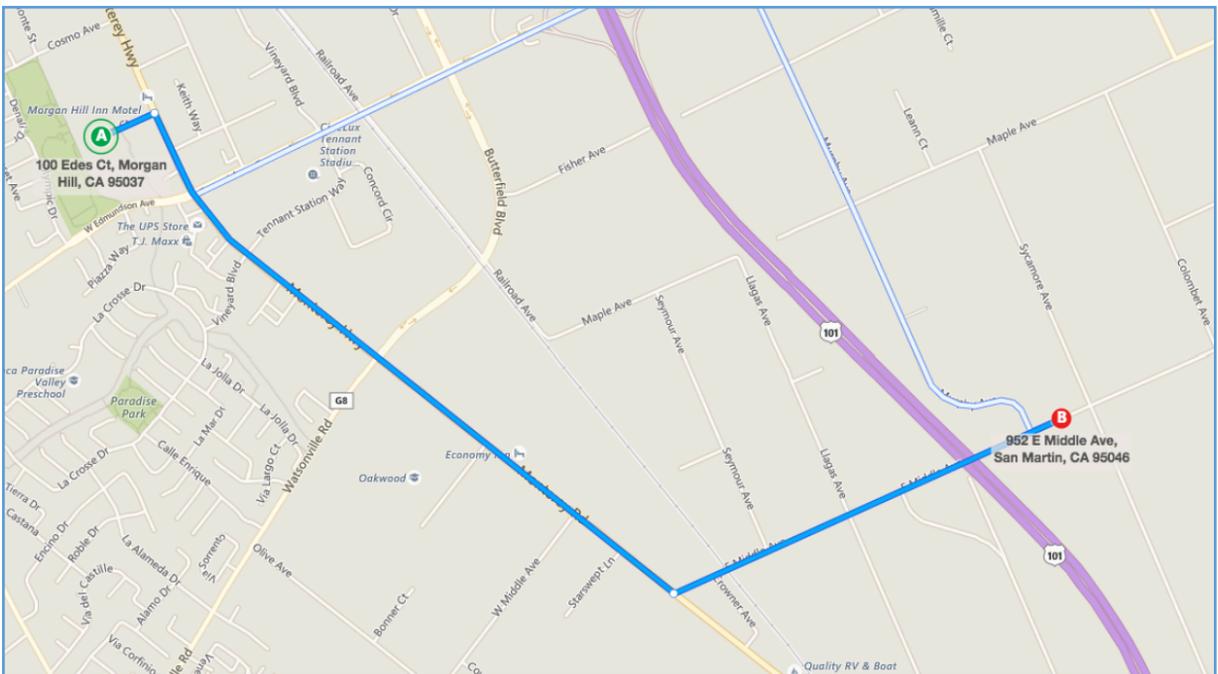


Pump Station PS-O
952 E. Middle Avenue

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
Spill Containment	15
Pump Station Power Map	16
Pump Station Control System	17
Lockout/Tagout Procedures	20
Generator Operation	24
Bypass to Force Main	29
Contact Information	34
System Map	38

Pump Station Technical Information

Name	PS-O – 925 E. Middle Avenue Pump Station
Address	925 E Middle Ave., San Martin, CA 95046
Lat., Long.	37.105441, -121.608359
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy 100 Edes Ct, Morgan Hill, CA 95037 Depart Edes Ct toward Monterey St / Monterey Turn right onto Monterey Rd / Monterey St / Monterey Hwy Bear left onto E Middle Ave The pump station will be on the right just past the freeway overpass



Pump Station Technical Information

Station Information	
Wet well dimensions & capacity	Tank 1: 5' diameter x 15' deep; 2,203 gallons Total Capacity: 2,203 gallons
Est. hold time (dry weather)	8 hours
Low point (likely overflow point)	The low manhole is in the street about 100' east of the pump station control panel Approx. GPS: 37.105568, -121.60802
Upstream pump station(s)	None. Gravity Only
Downstream pump station	WWTP
Forcemain Data	6" x 4,086'
Discharge location	37.10095, -121.621021

Pump Capacities		
Pump	Motor & Pump	Capacity
#1	Flygt 3127/488, 10hp, 240v 3-phase	144 gpm
#2	Flygt 3127/488, 10hp, 240v 3-phase	144 gpm

Station Power		
Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038055
	PG&E Meter #	1009448774
	PG&E Outage Block	4
	Priority	Sewer pump station
Backup Generator	The station is not equipped with a permanently installed backup generator, however it is equipped with a manual transfer switch and a quick connect for a portable generator	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port. The station may be bypassed by installing an adapter onto one of the check valves. However, as access to the check valves is limited and the station hold time is long, transfer trucks may be a better option	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

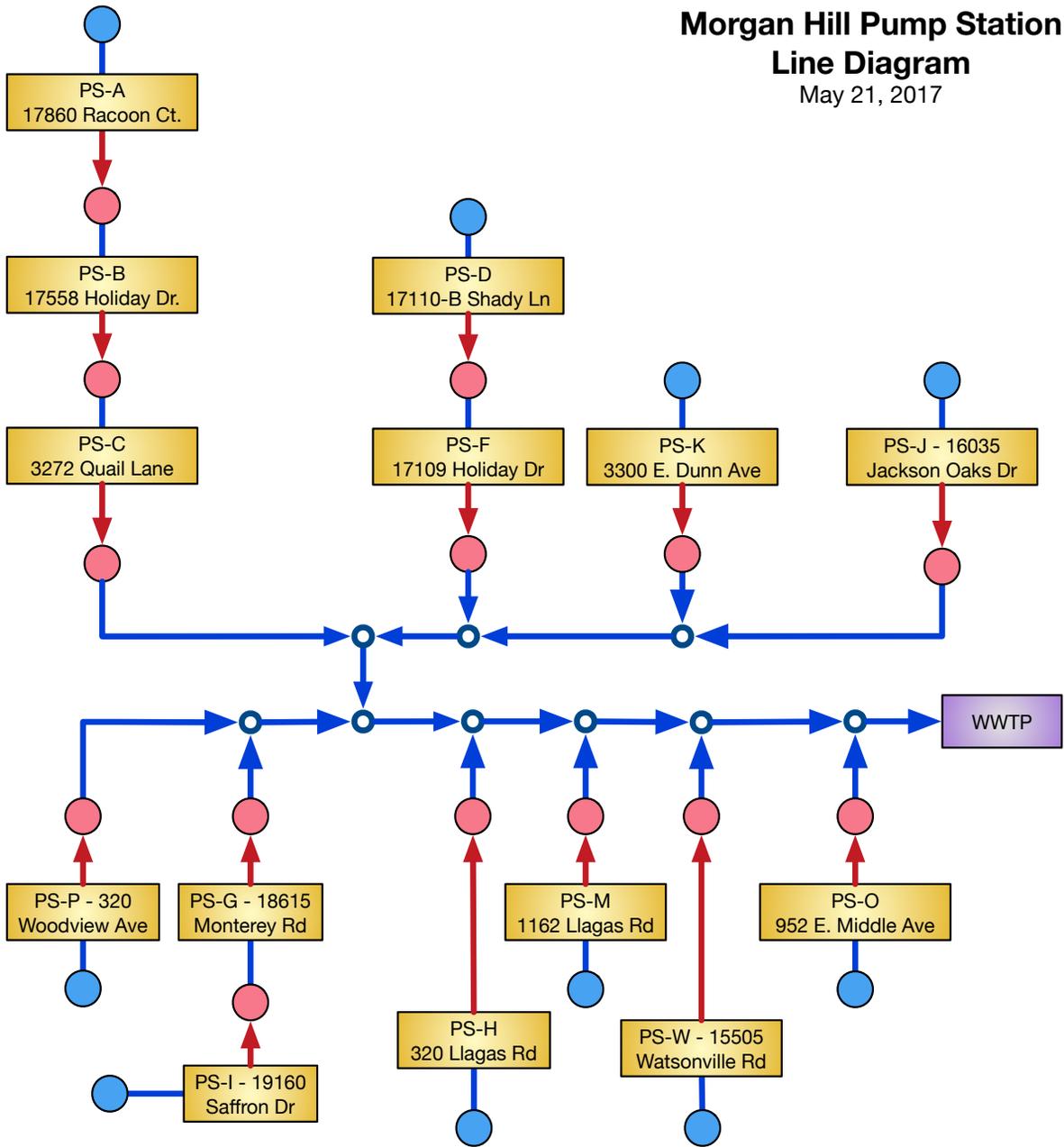
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

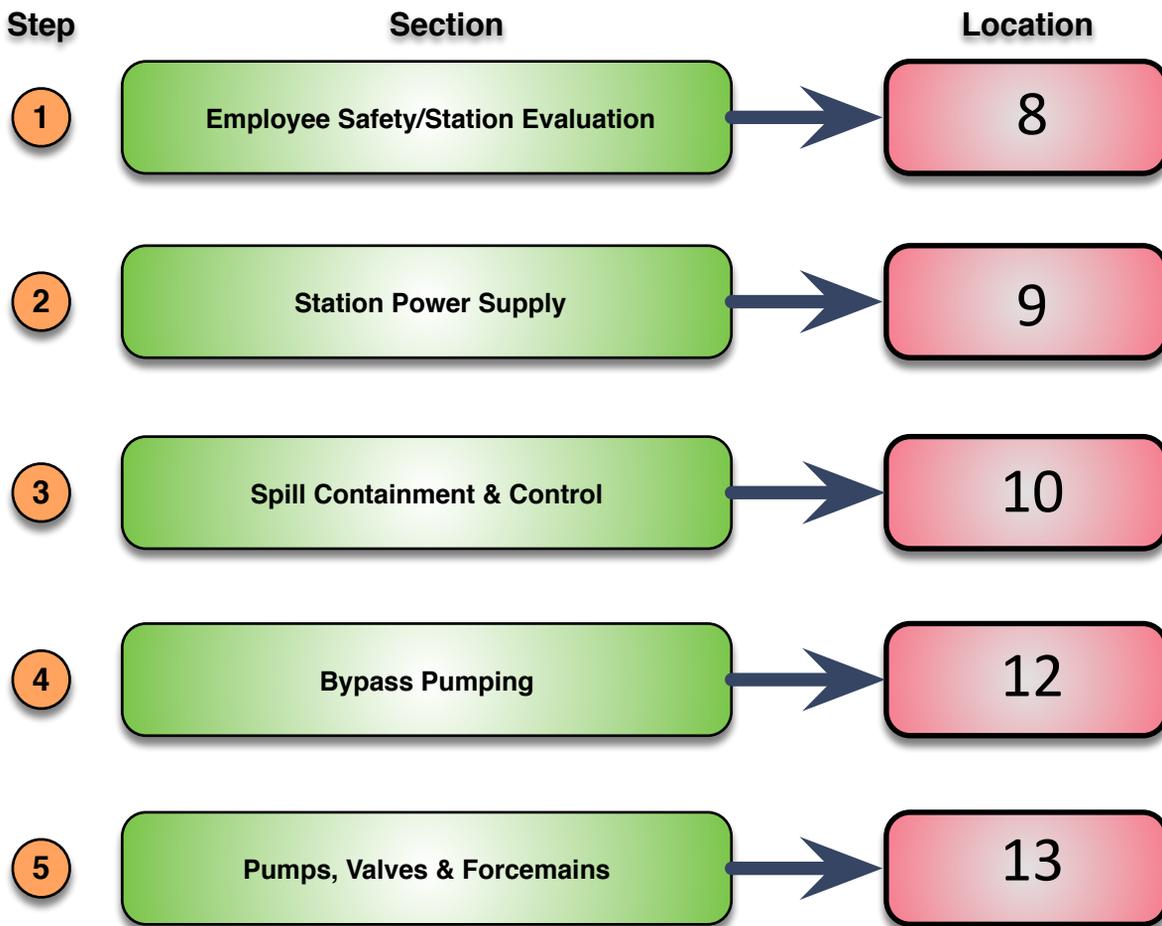
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
● Gravity Feed Only	→ Force main & flow direction
● Force Main Discharge	→ Gravity line & flow direction
◆ Force Main Junction	PS Morgan Hill managed PS
○ Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide **Decision Tree Index**

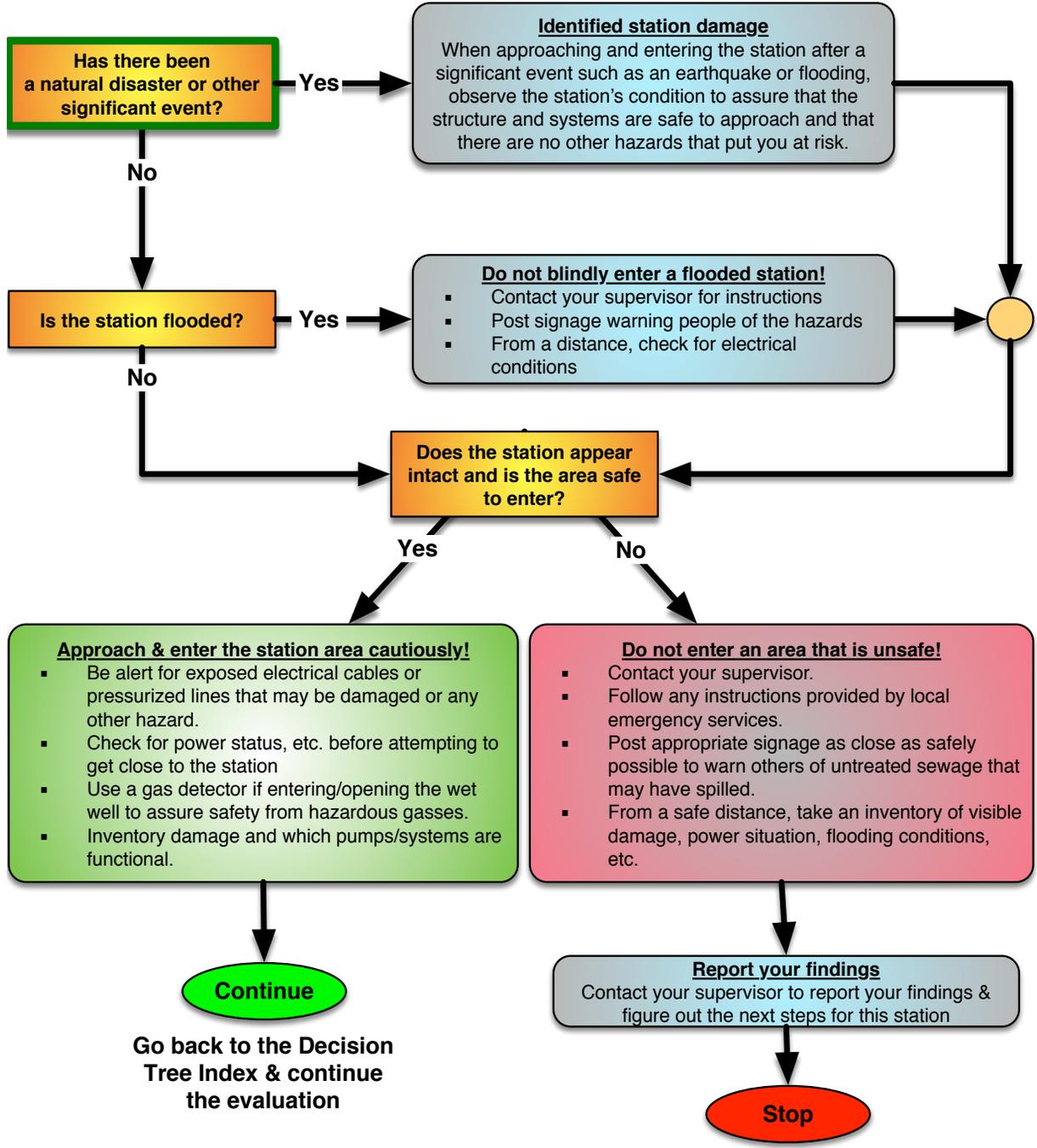


LEGEND

<p> Initial Question</p> <p> Page-To-Page Link</p> <p> Sequence Merge (Watch arrows for flow direction)</p>	<p> Decision Point</p> <p> Task/Direction Item</p>
--	--

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

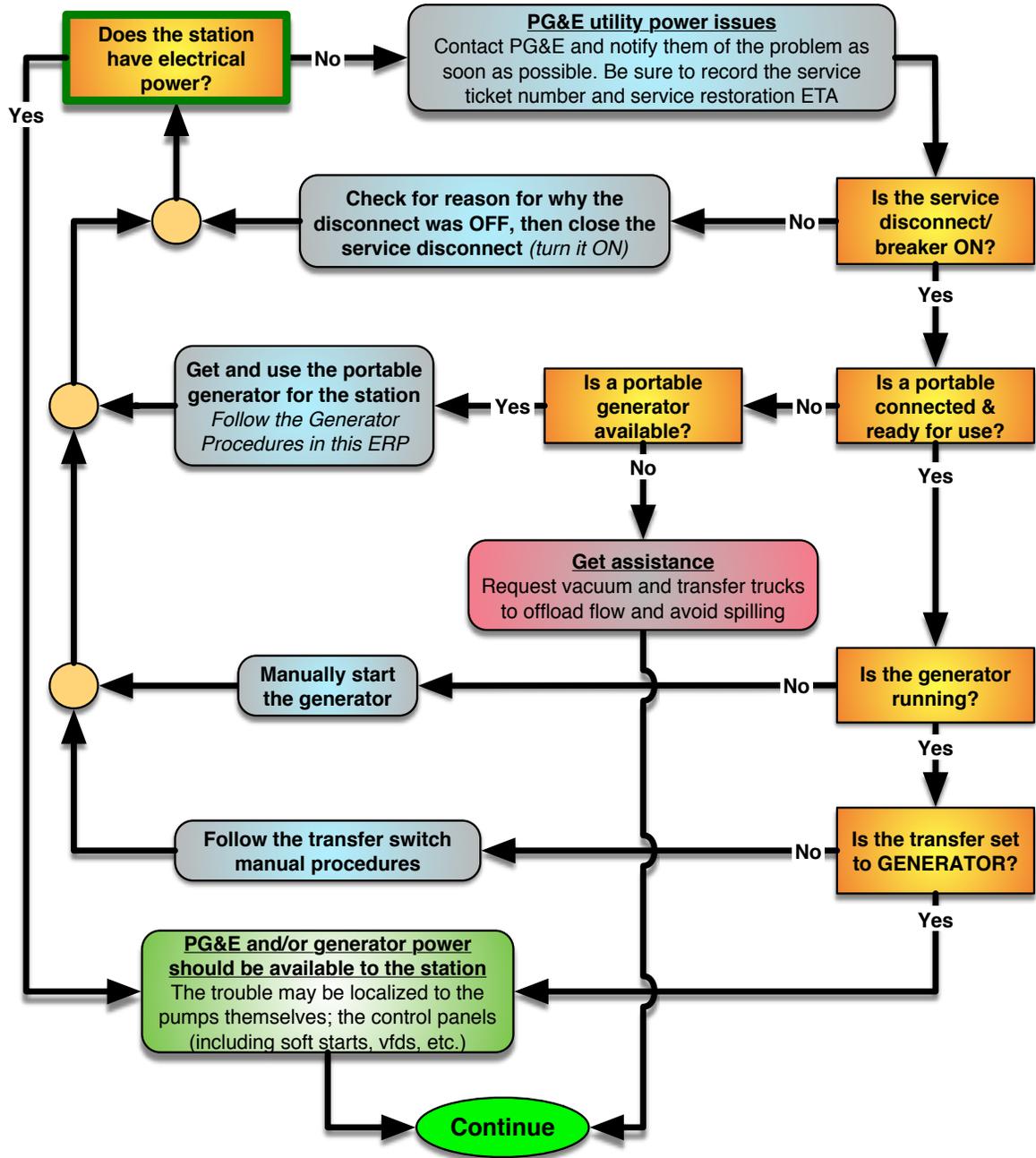


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply

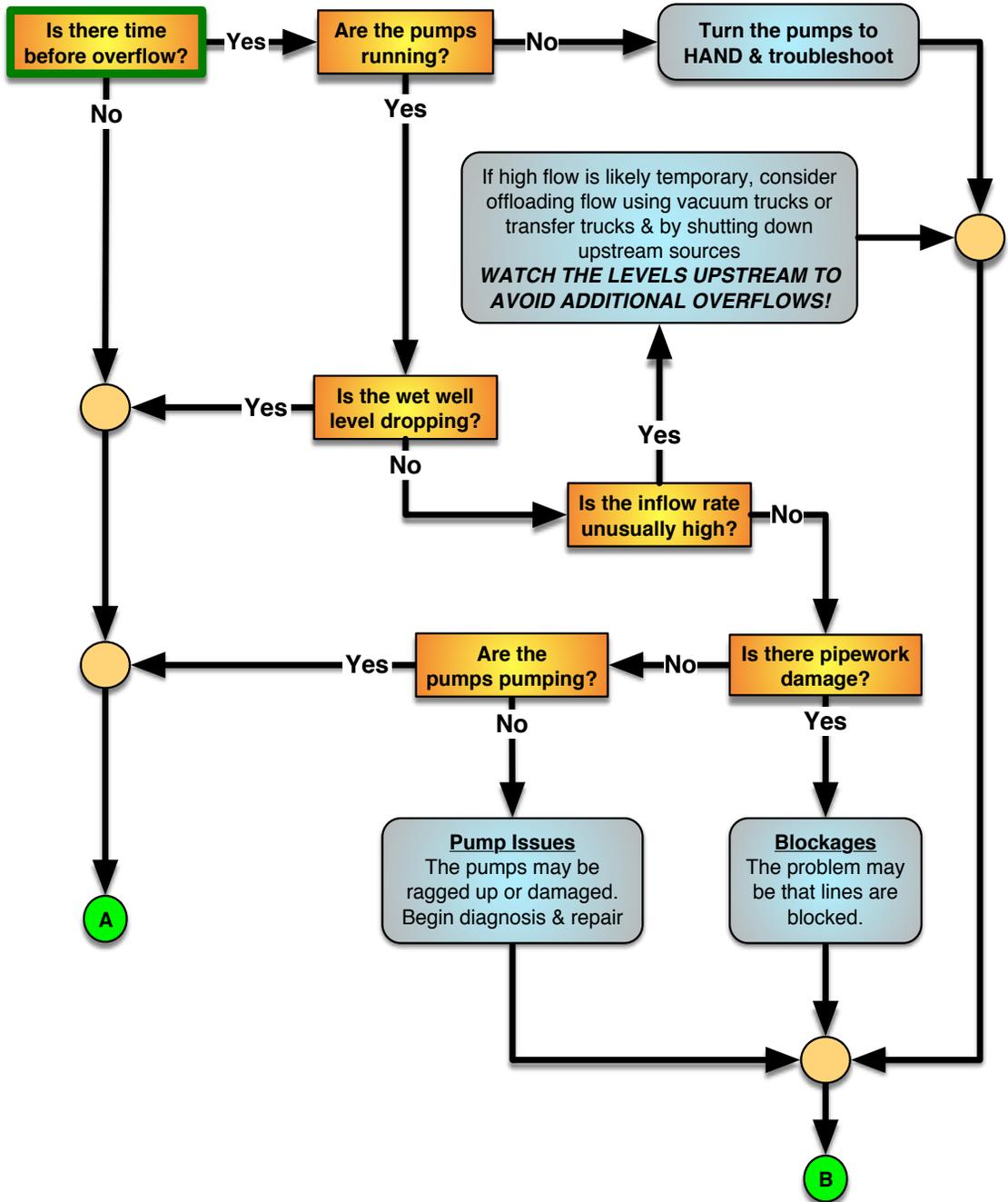


Go back to the Decision Tree Index & continue the evaluation

LEGEND ? Initial Question X Page-To-Page ● Sequence Merge ■ Decision Point ● Task/Direction Item

Overflow – Decision Tree

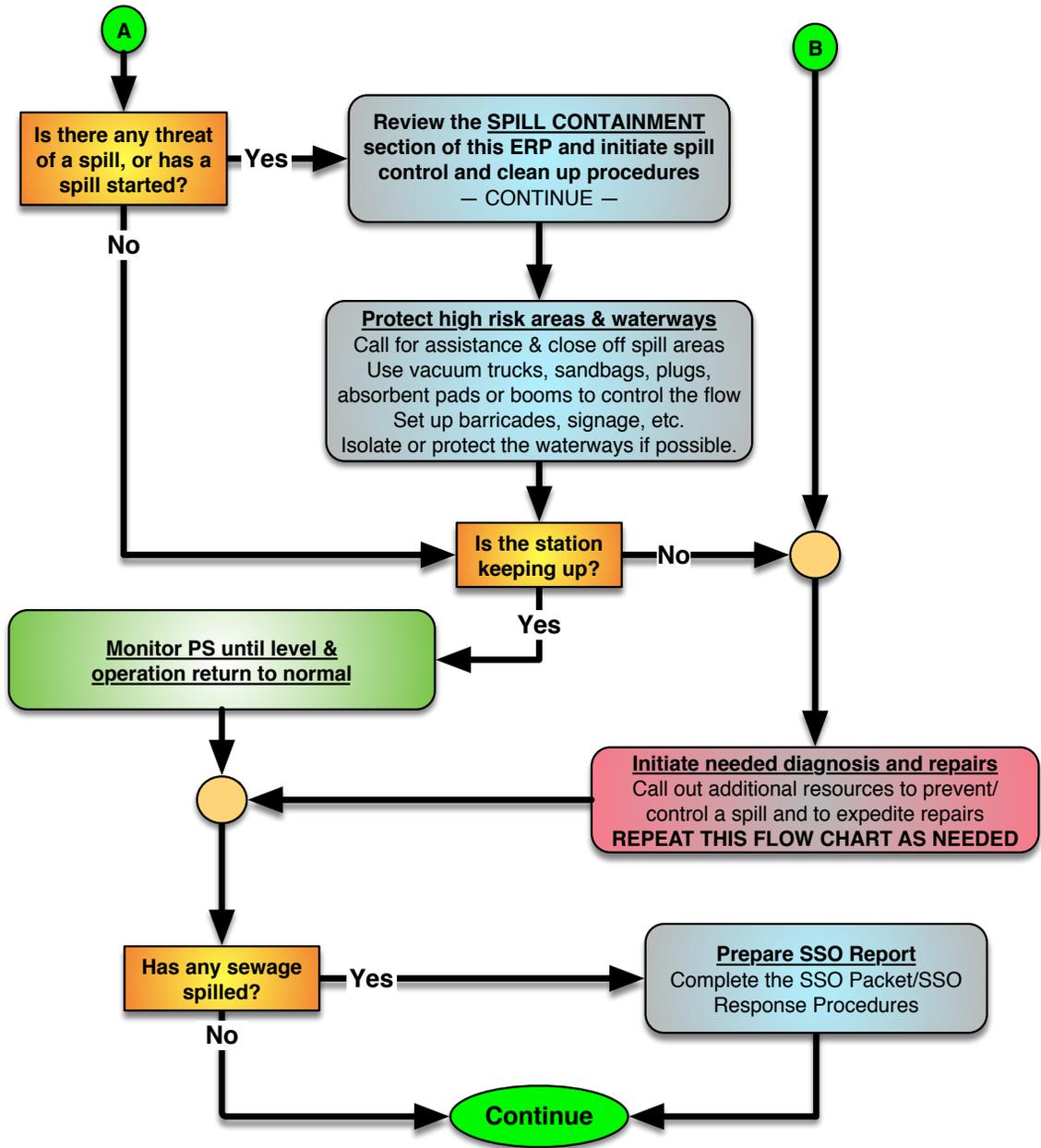
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ○ Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - *Continued*



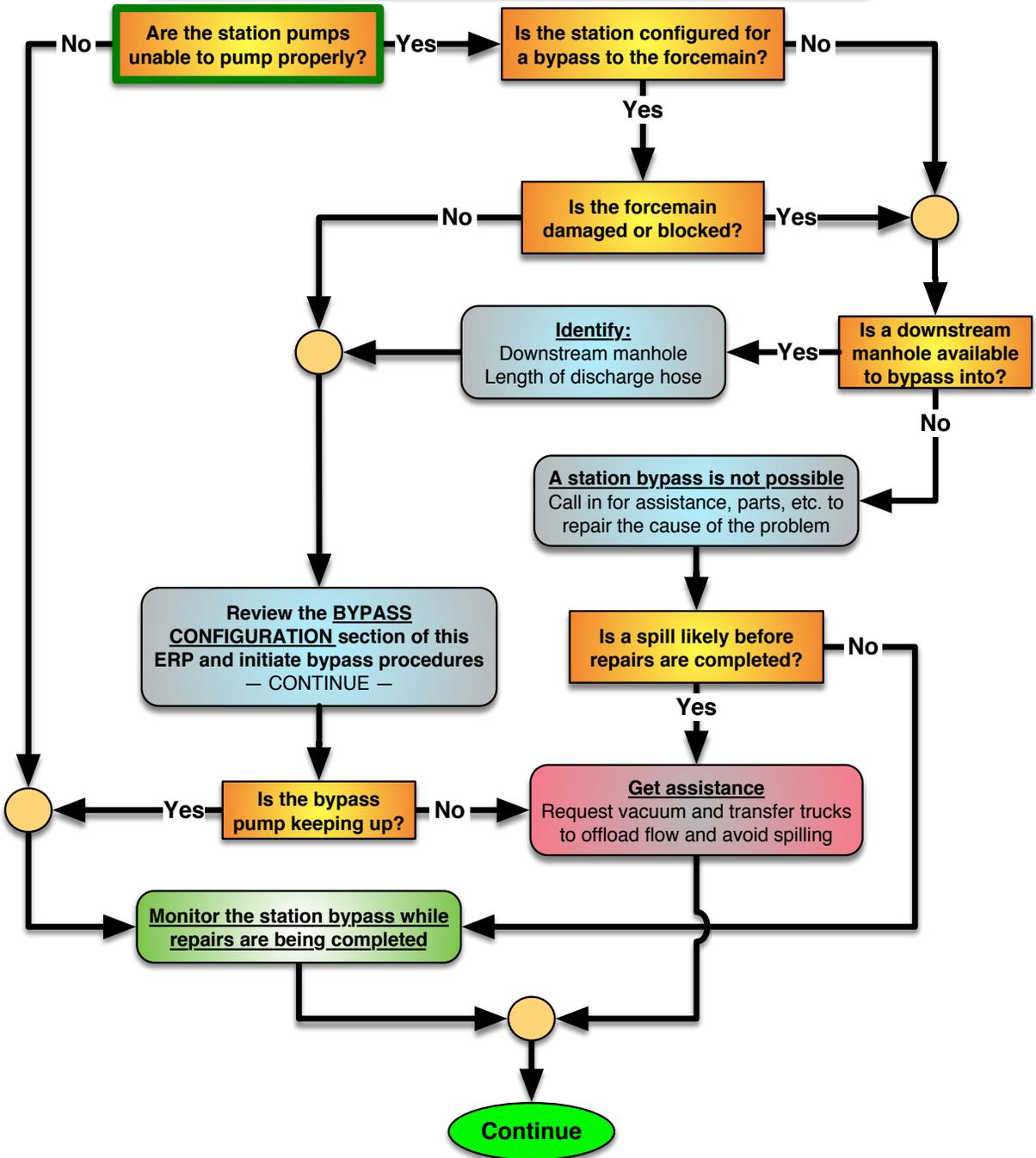
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



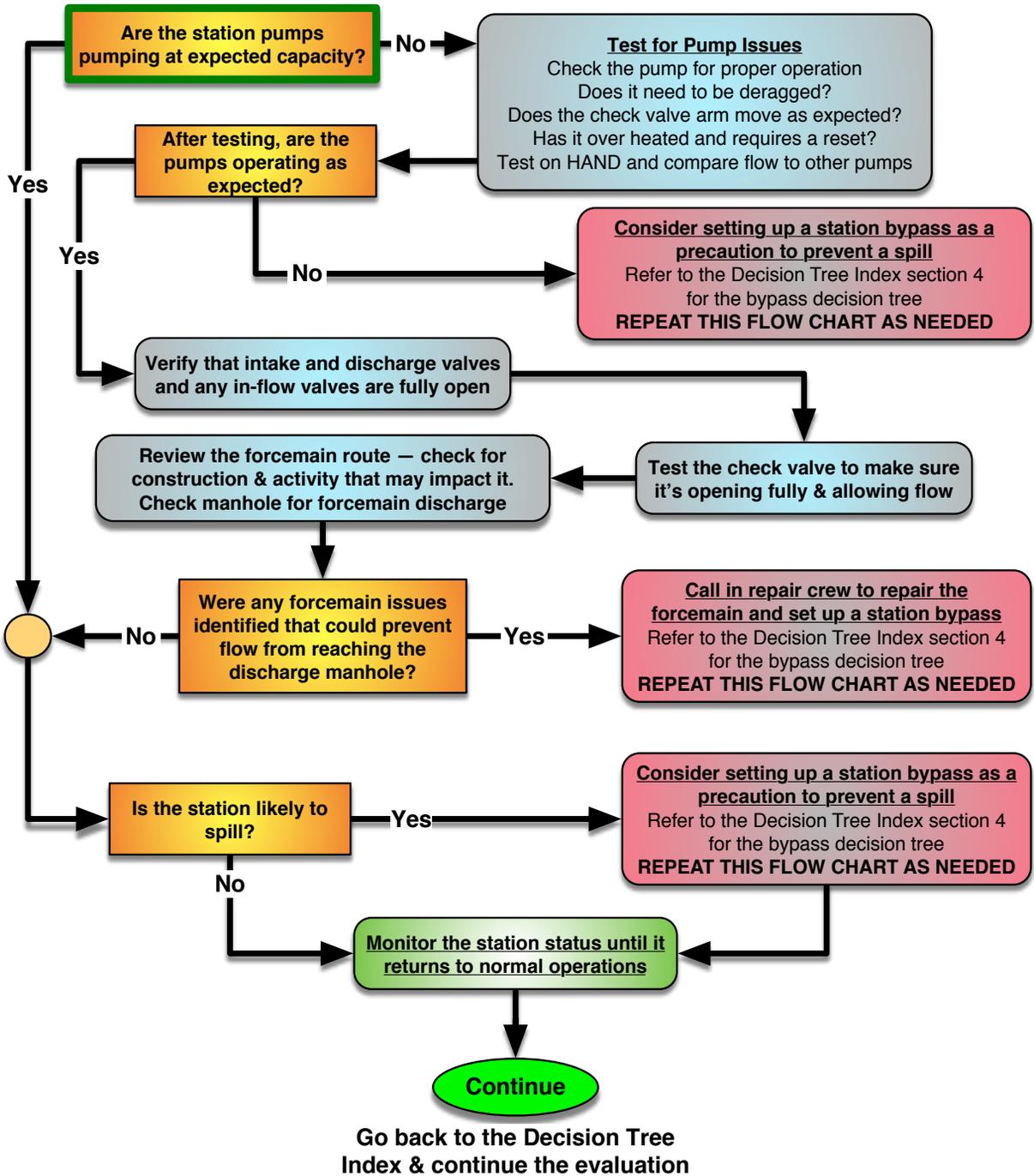
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5 Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND



Initial Question



Page-To-Page



Sequence Merge



Decision Point



Task/Direction Item

Spill Notification Procedures

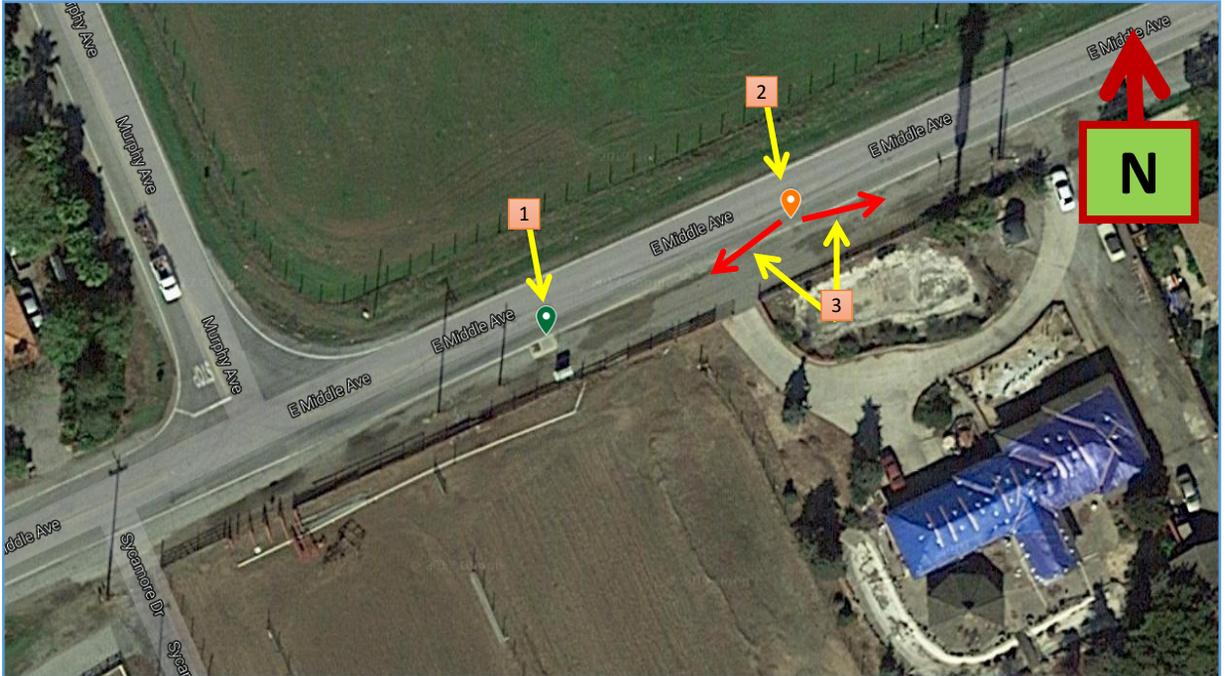
Pump Station O is located in the Jurisdiction of the
Central Coast Regional Water Control Board (#3)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

See the Contact Information Section for contact information
Page 34

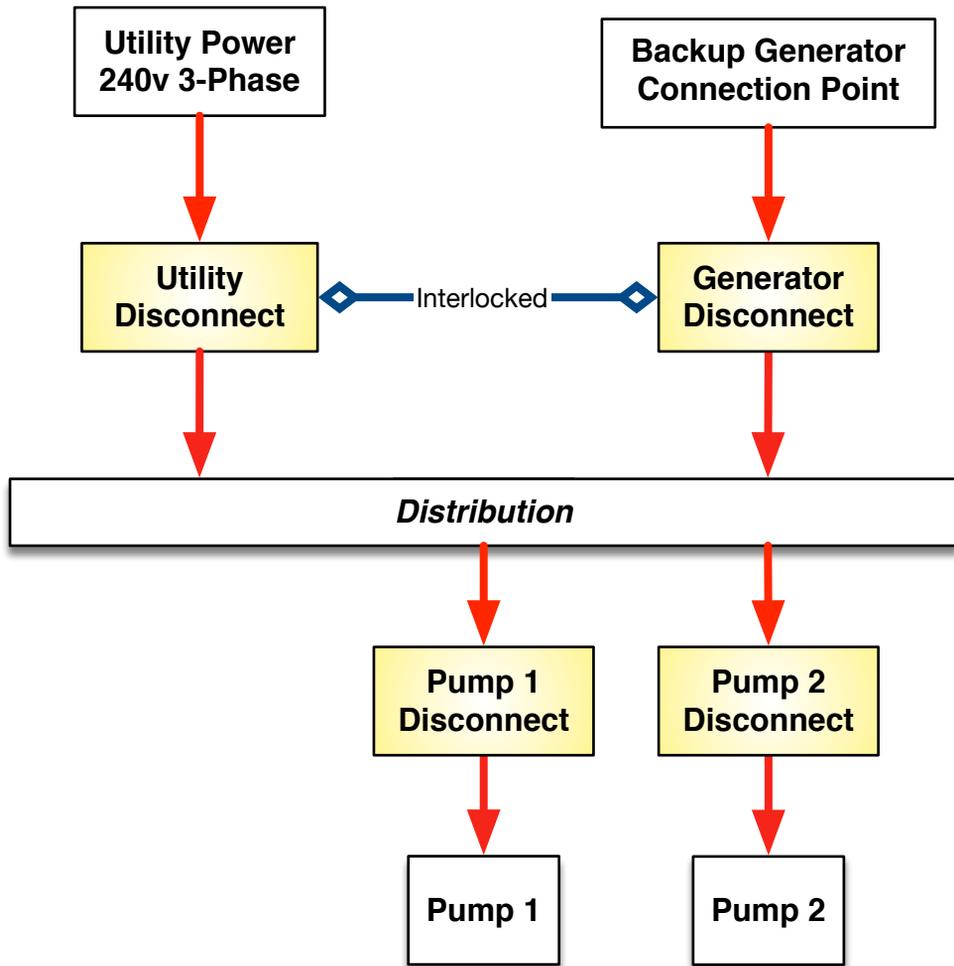
Spill Containment



Potential SSO Impact on State Water

	Type	Position from low point	Containment
1	Pump station	~100' W	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low point	-	
3	<i>Expected flow direction from system low point (RED ARROWS ON MAP)</i>		

Pump Station Power Map



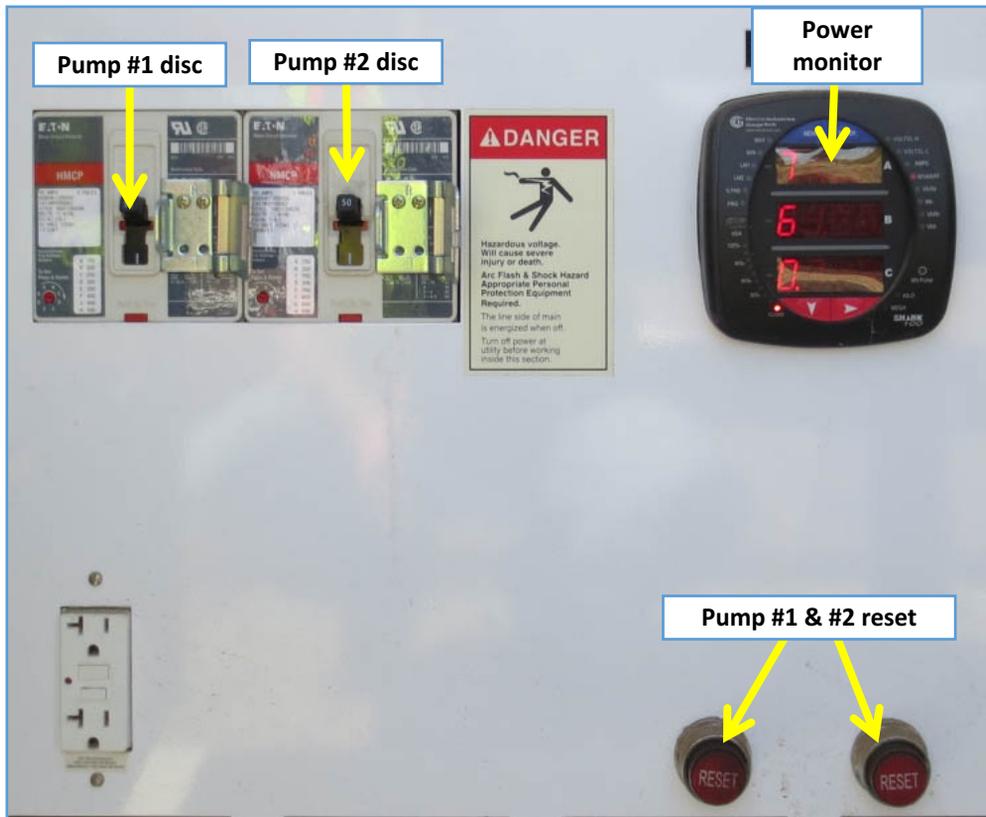
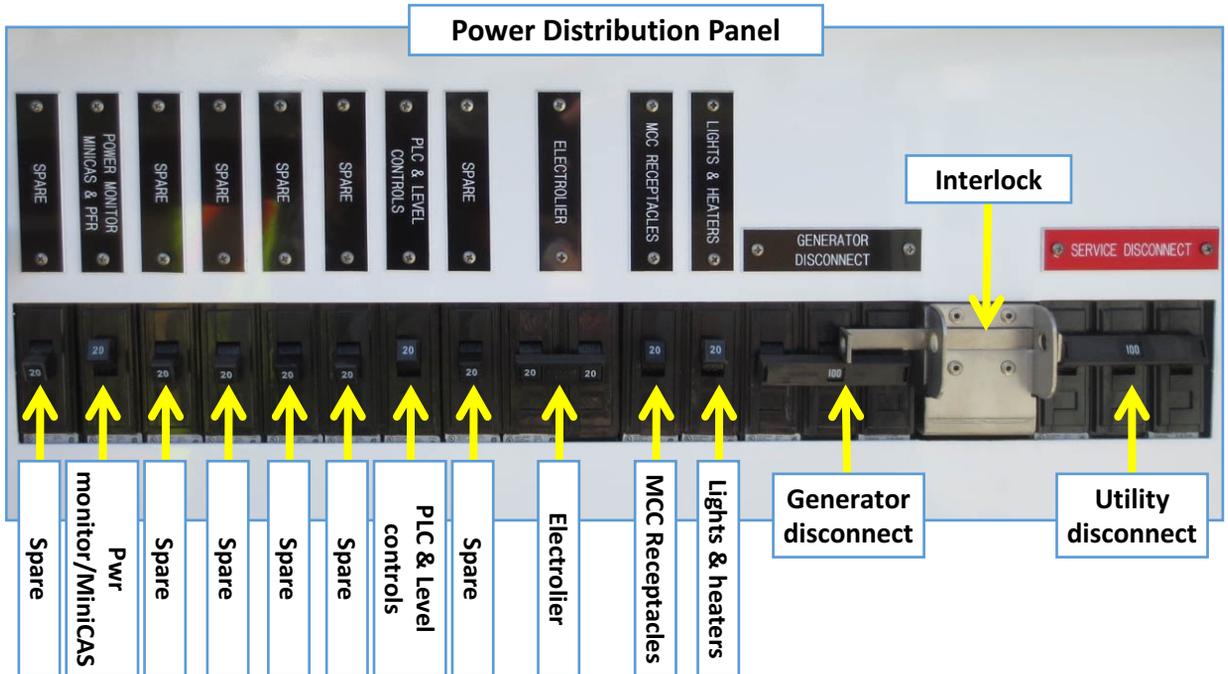
Done

Pump Station Control System



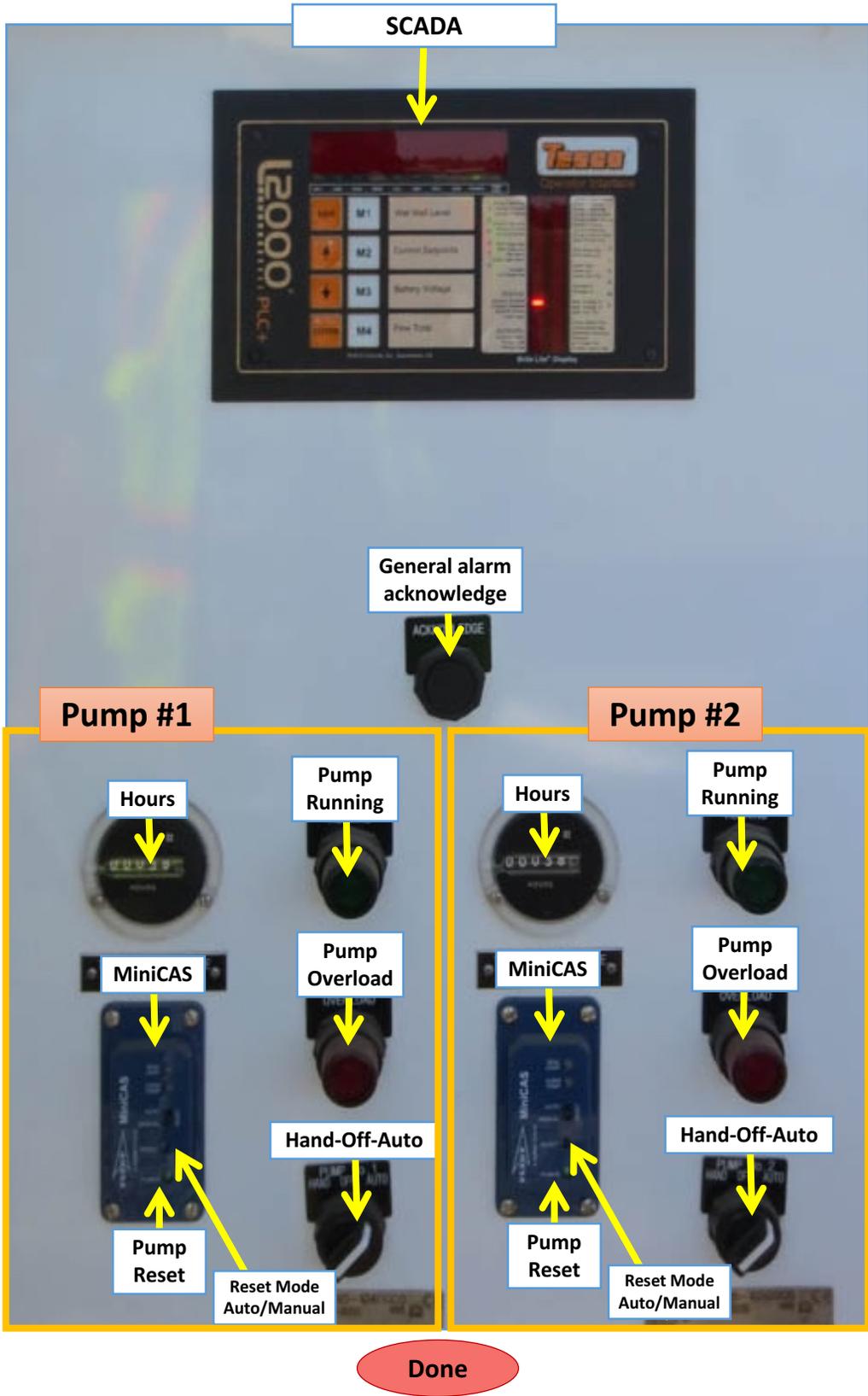
Next

Pump Station Control System



Next

Pump Station Control System



Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and potentially by portable backup generator. Care must be taken to disable all energy sources.

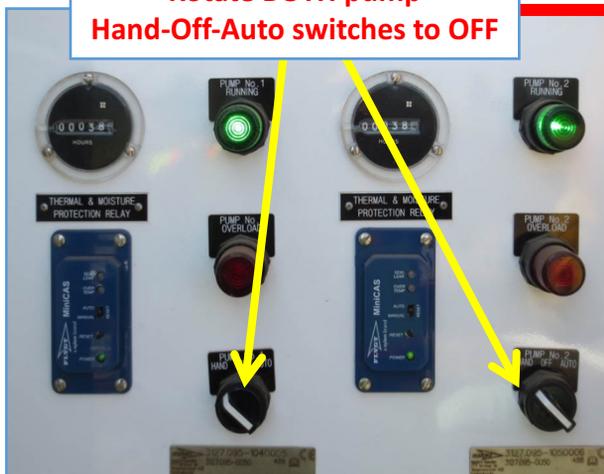
Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down (if attached) and disable the generator
4. Move the utility service disconnect to OFF & install LOTO device & tag
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



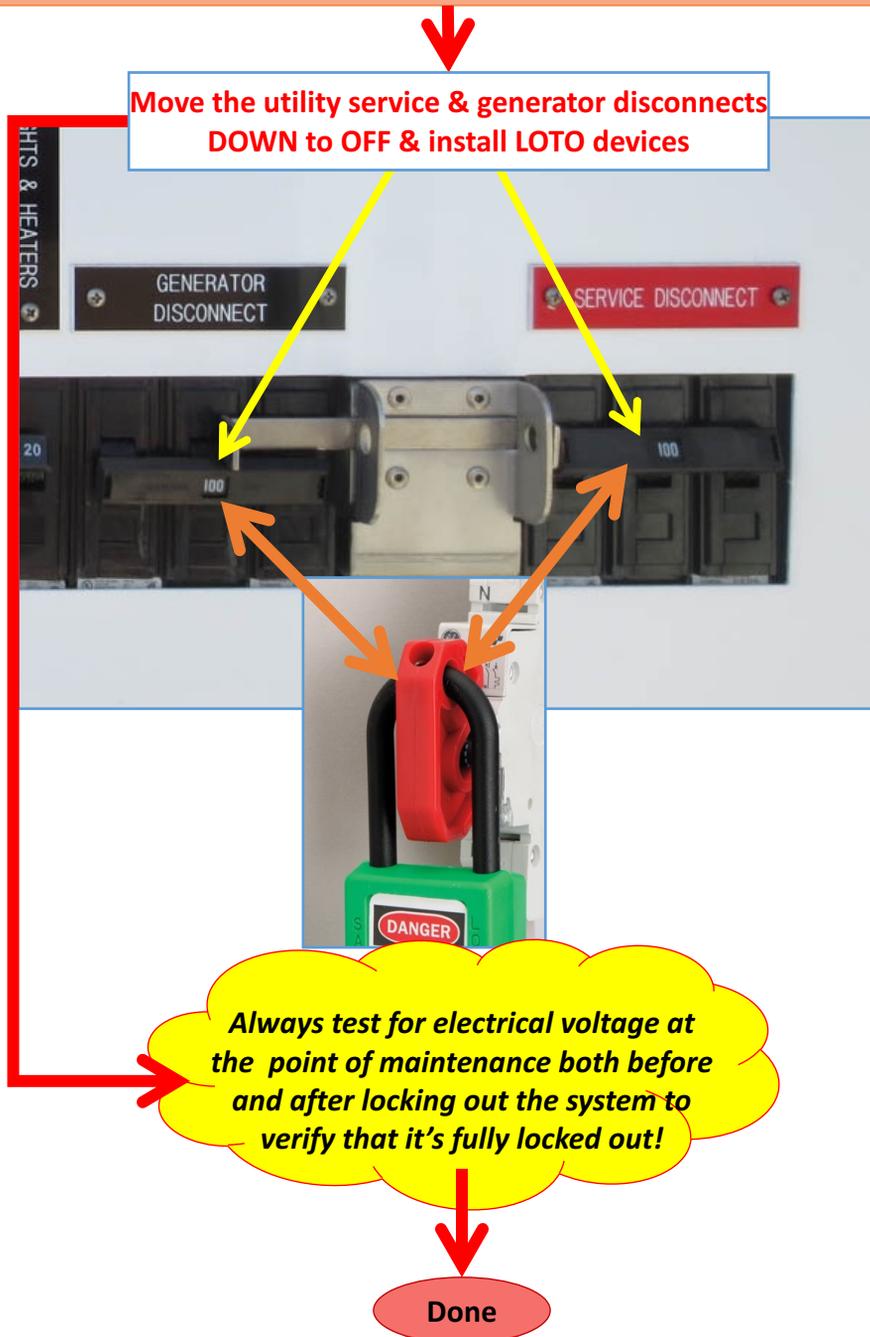
**Move BOTH pump
disconnects DOWN to OFF**



Next

Lockout/Tagout Procedures

If a portable generator is attached, shut it down and disable it from starting



Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

On control panel for desired pump

1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel

Rotate the desired pump Hand-Off-Auto switch to OFF

Move the associated pump disconnect DOWN to OFF

Install a LOTO device on the pump disconnect breaker lockout tab

Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Typical

Lockout/Tagout Procedures

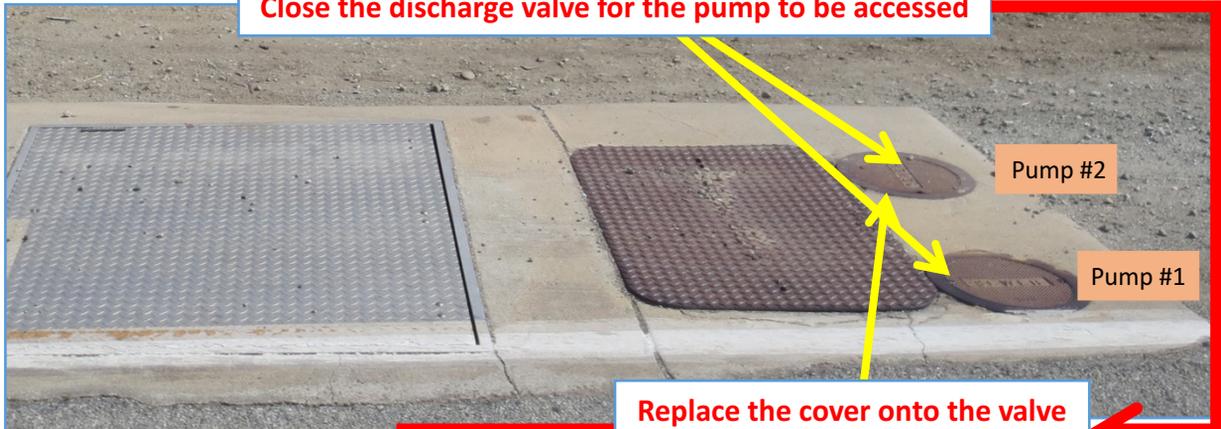
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Replace the cover onto the valve and attach a LOTO tag to the lid

Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done



Generator Operation

Portable Generator Connection & Operation

- Reduce the potential load on the station – Shut pumps off
- Shut the utility service disconnect OFF
- Unlock and move the manual transfer switch to GENERATOR
- Connect the generator
- Start the generator & then turn the generator output breaker ON
- Enable the pumps as desired

Begin

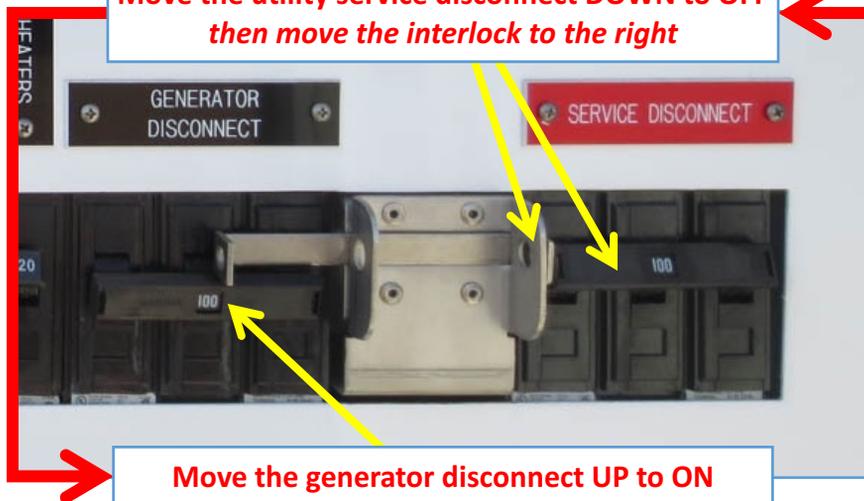
**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



**Move the utility service disconnect DOWN to OFF
then move the interlock to the right**



Move the generator disconnect UP to ON

Next

Generator Operation

This station requires 240v 3-phase power
Be sure the generator is appropriately sized and configured for use

**Connect the portable generator to the
emergency generator power port**



**Follow the appropriate Portable Generator Procedures for
starting and bringing the portable generator online**
→ *Once it's operating, continue*

Next

Generator Operation

AS DESIRED: Enable station systems

**Rotate BOTH pump
Hand-Off-Auto switches to
HAND or AUTO as desired**

**Move BOTH pump
disconnects UP to ON**



At this point, the station should be running on generator power and completely independent of utility grid power

Done

Generator Operation

To return to utility power

- Reduce the potential load on the station – Shut pumps off
- Shut the generator OFF & disconnect the generator
- Unlock and move the manual transfer switch to UTILITY/PG&E POWER
- Move the main utility service breaker to ON
- Enable the pumps as desired

Begin

Rotate BOTH pump Hand-Off-Auto switches to OFF



Move BOTH pump disconnects DOWN to OFF



Follow the appropriate Portable Generator Procedures for shut down and disabling the portable generator → Once it's fully stopped, continue

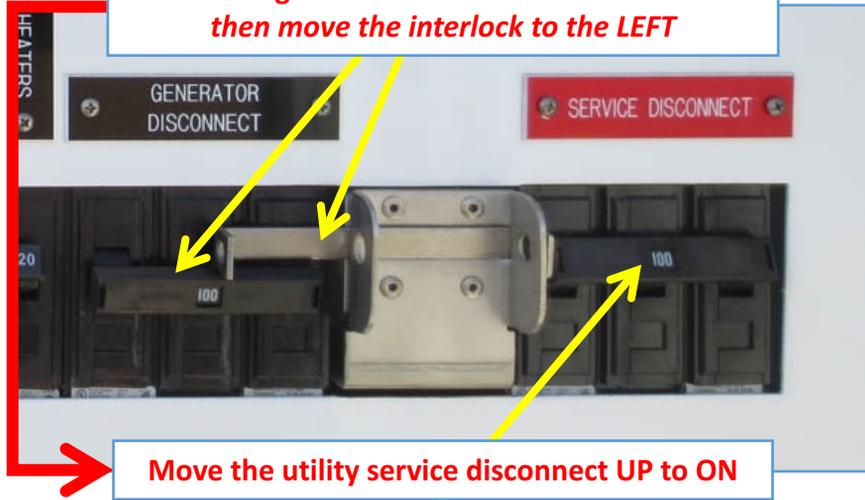
Disconnect the portable generator from the emergency generator power port



Next

Generator Operation

**Move the generator disconnect DOWN to OFF
then move the interlock to the LEFT**

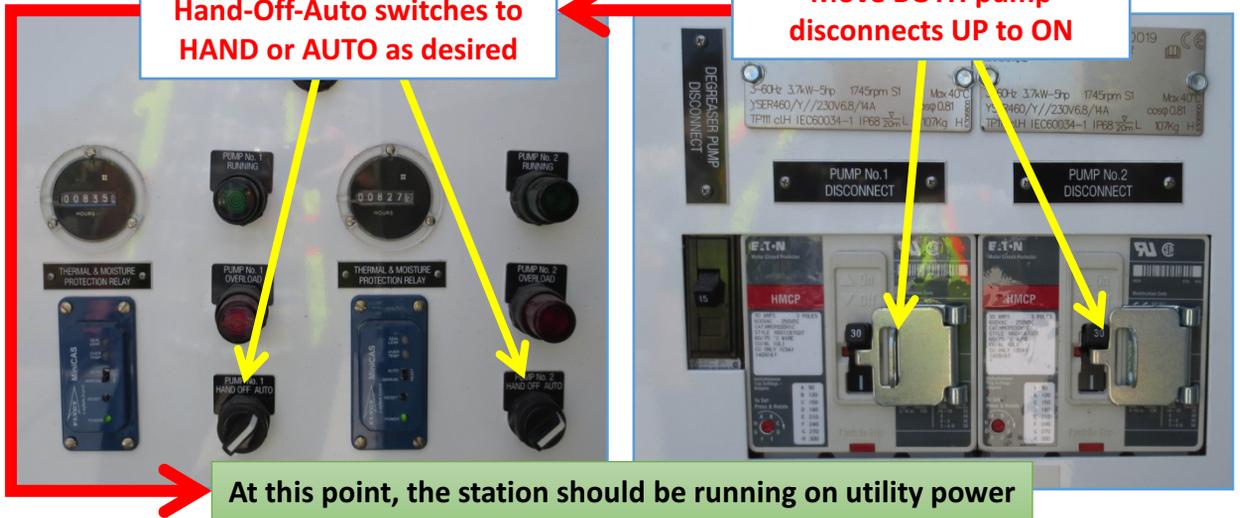


Move the utility service disconnect UP to ON

AS DESIRED: Enable station systems

**Rotate BOTH pump
Hand-Off-Auto switches to
HAND or AUTO as desired**

**Move BOTH pump
disconnects UP to ON**



At this point, the station should be running on utility power

Done

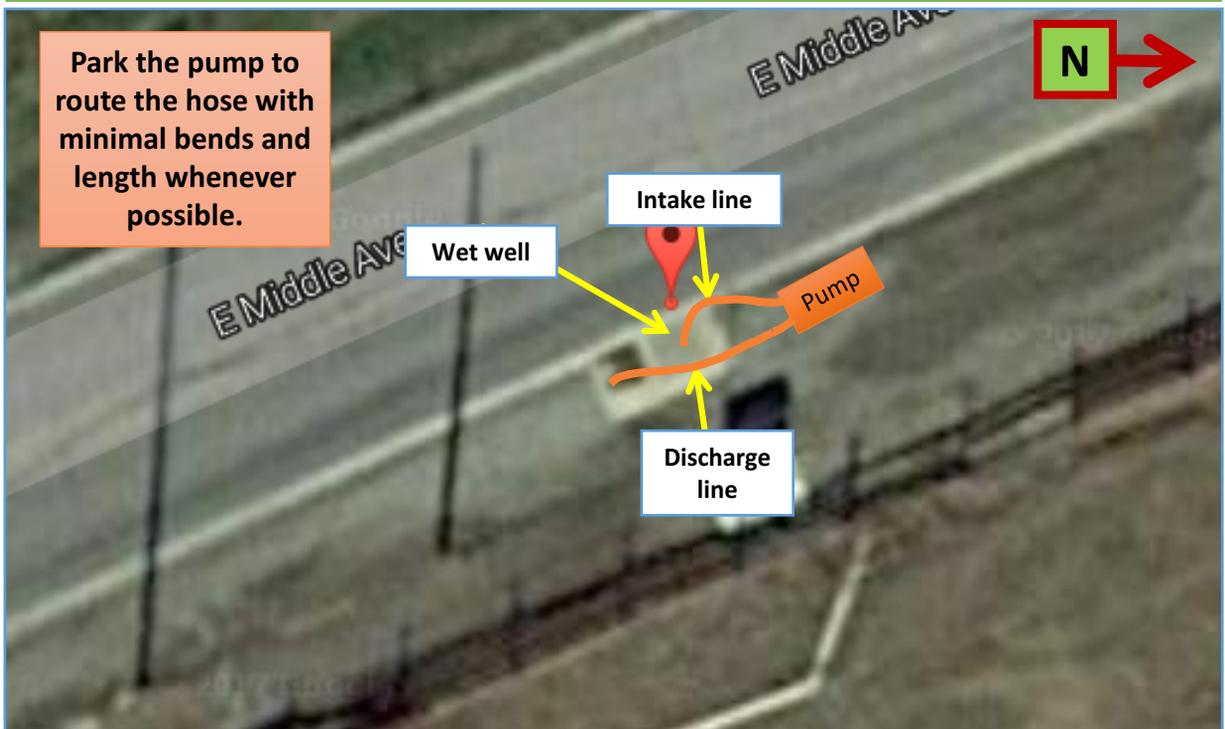
Bypass to Force Main

Procedure Summary

Configure the station for bypass: *A coupler must be installed to complete a bypass.*

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Shut down, disable the station pumps
- Close the discharge valves
- Lockout the pump and associated check valve to be worked on
- Install the bypass coupler in place of the cover plate
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump & route it to the newly installed bypass coupler
- Verify all connections and then open the discharge for the newly installed bypass port
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the portable pump down, close the discharge valve, relieve any residual pressure in the discharge line.
 - Disconnect the hoses and clean up
 - Install LOTO and restore the check valve to it's normal configuration
 - Remove LOTO & open the station valves to return to normal operations

Begin Procedure

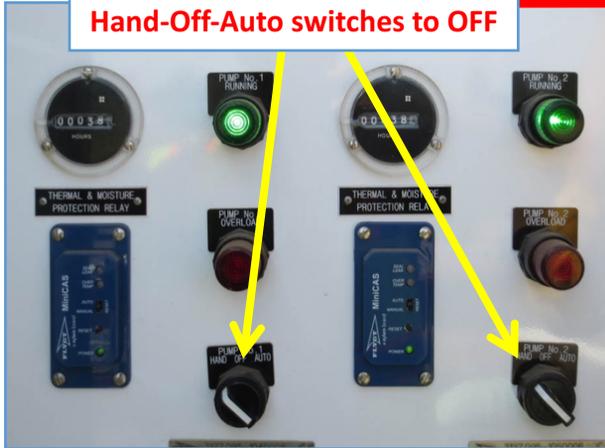


Next

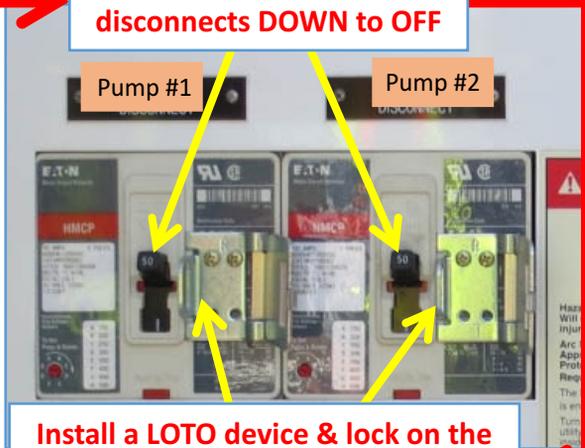
Bypass to Force Main

Park & prepare the trash pump in a location that will minimize hose bends. Set up traffic control devices as needed

Rotate BOTH pump Hand-Off-Auto switches to OFF



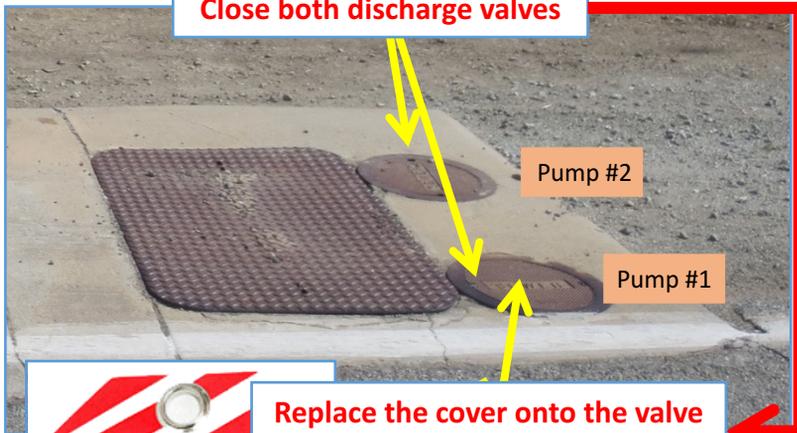
Move BOTH pump disconnects DOWN to OFF



Install a LOTO device & lock on the pump disc./breaker for the pump that will have its check valve worked on



Close both discharge valves



Replace the cover onto the valve and attach a LOTO tag to the lid



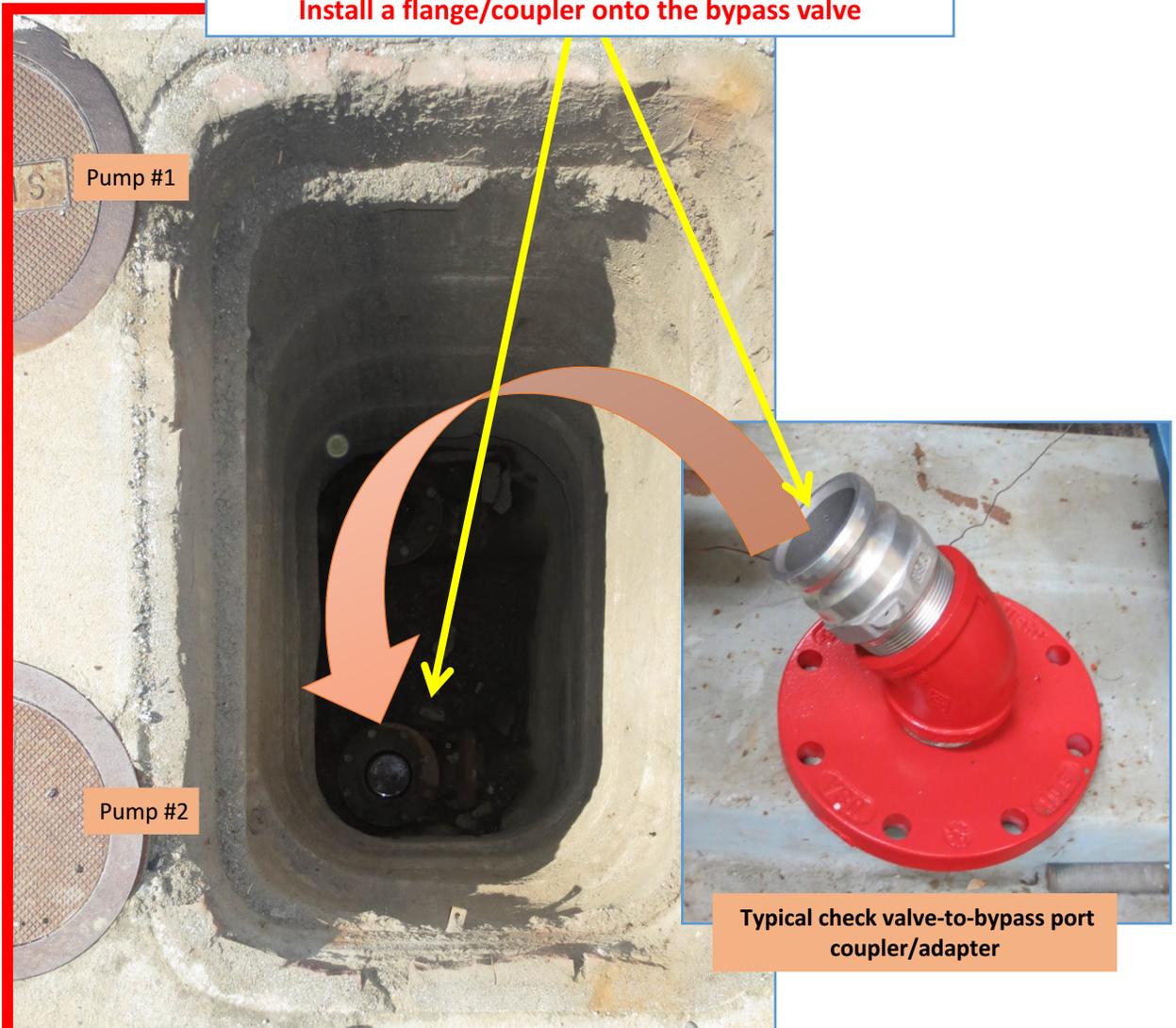
Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Next



Bypass to Force Main

Install a flange/coupler onto the bypass valve



Next

Bypass to Force Main

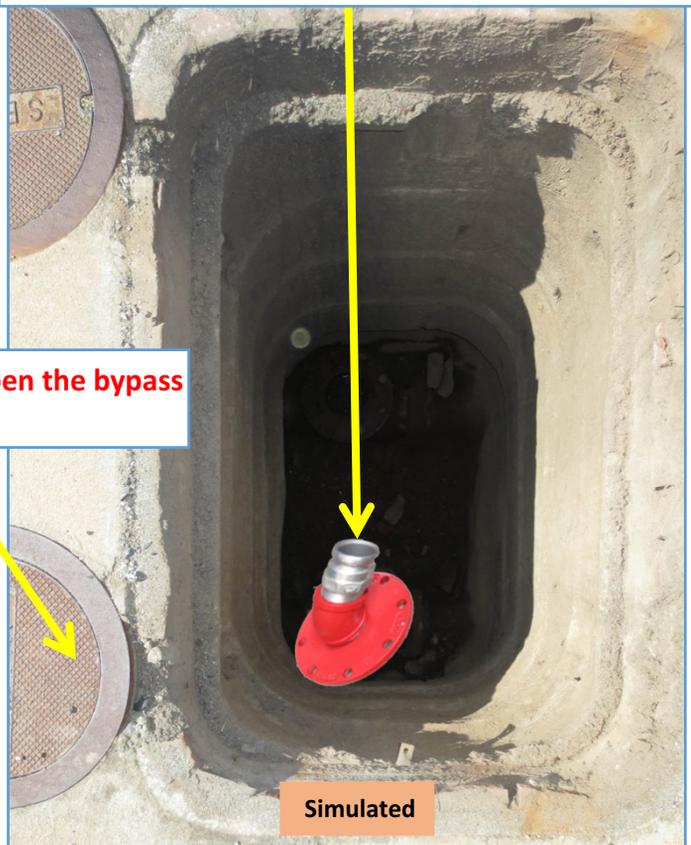
Connect a suction hose with strainer-end to the intake port



Lower the suction hose into the wet well
Caution – the wet well is a fall hazard!



Connect a section of hose to the pump discharge port and route it to the newly installed coupler



Verify all connections and then open the bypass port valve

Next

Bypass to Force Main

Check all hose fittings and couplers before continuing!

Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Close both station discharge valves
- Relieve any residual pressure in the discharge hose
- Relieve any residual pressure in the intake hose
- Carefully disconnect, drain & stow the discharge & intake lines
- Remove the adapter and return the check valve to its normal configuration
- Return the station systems to normal operation as desired
- Pull any traffic control systems no longer required
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

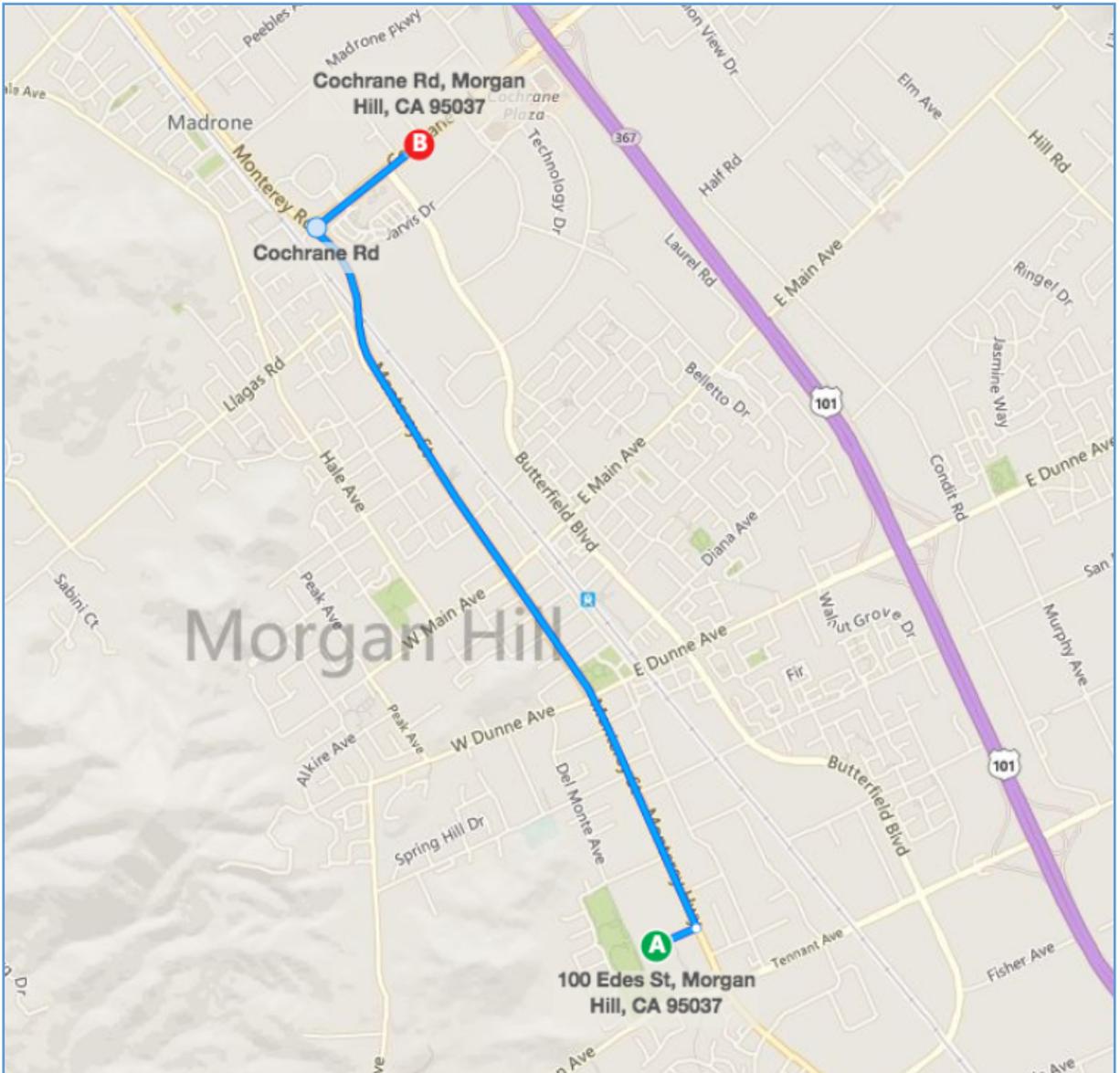


Pump Station PS-P
350 Cochrane Road

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
Spill Containment	15
Pump Station Power Map	16
Pump Station Control System	17
Lockout/Tagout Procedures	21
Generator Operation	25
Bypass to Downstream Manhole	30
Contact Information	33
System Map	37

Pump Station Technical Information

Name	PS-P – 350 Cochrane Road Pump Station
Address	350 Cochrane Road, Morgan Hill, CA 95037
Lat., Long.	37.148432, -121.659245
Directions	From the City of Morgan Hill Corporation Yard at 100 Edes Ct <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Turn right onto Cochrane Rd The station is on the right side of Cochrane at the Woodview intersection



Pump Station Technical Information

Station Information	
Wet well dimensions & capacity	Tank 1: 4' diameter x 19' deep; 1,786 gallons Total Capacity: 1,786 gallons
Est. hold time (dry weather)	14.25 hours
Low point (likely overflow point)	Two manholes near the pump station Approx. GPS: 37.138643, -121.667173 Approx. GPS: 37.138681, -121.667372
Upstream pump station(s)	Gravity only
Downstream pump station	WWTP
Forcemain Data	4" x 27'
Discharge location	37.148365, -121.65919

Pump Capacities		
Pump	Motor & Pump	Capacity
#1	Flygt 3102/464, 5hp, 240v 3-phase	511 gpm
#2	Flygt 3102/464, 5hp, 240v 3-phase	511 gpm

Station Power		
Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038020
	PG&E Meter #	1008833558
	PG&E Outage Block	50
	Priority	Sewer pump station
Backup Generator	The station is not equipped with a permanently installed backup generator, however it is equipped with a manual transfer switch and a quick connect for a portable generator	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port, however as the force main discharge point is only 40' from the wet well the station may be bypassed using a pump and hose.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

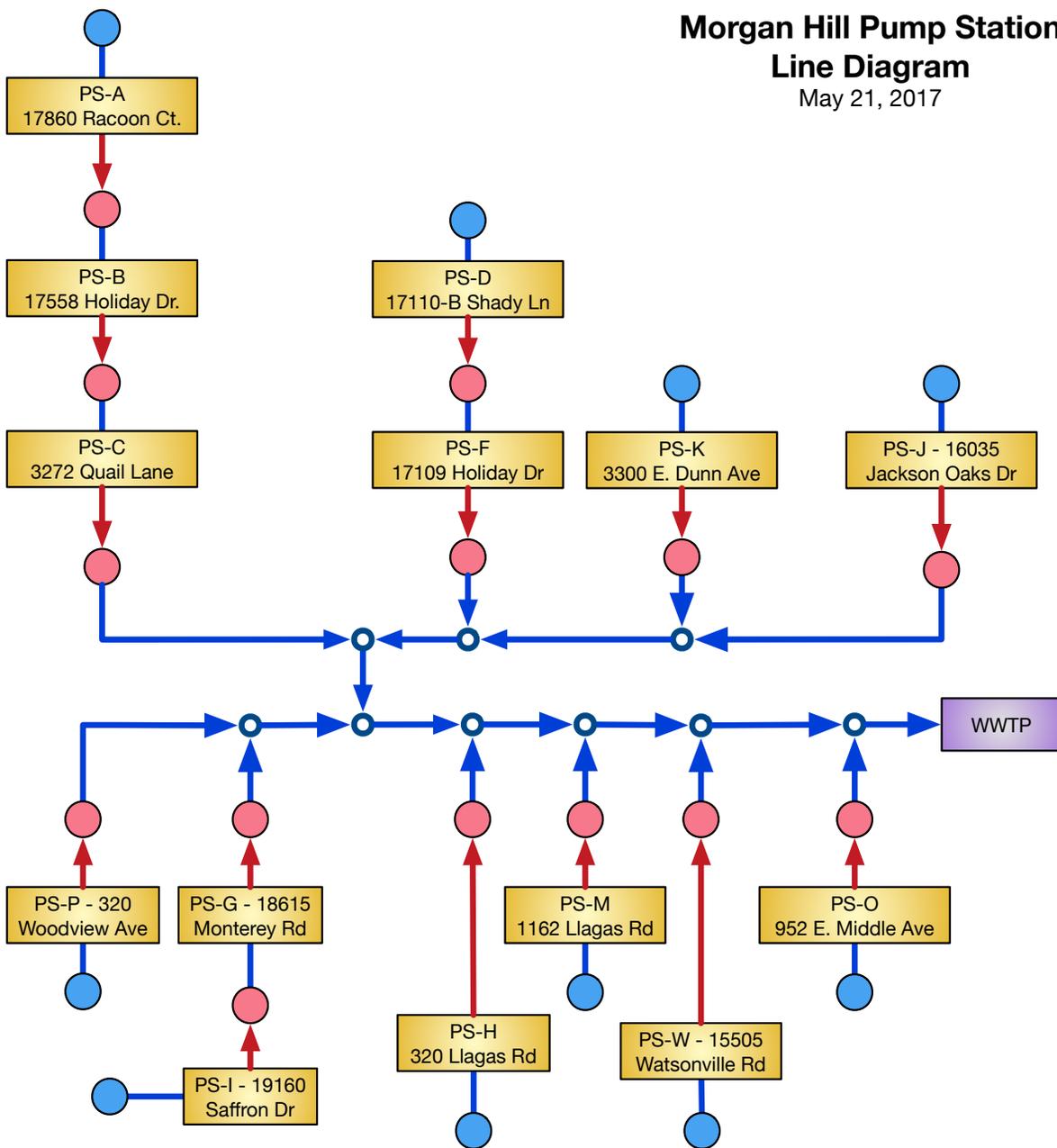
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

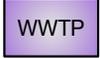
In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

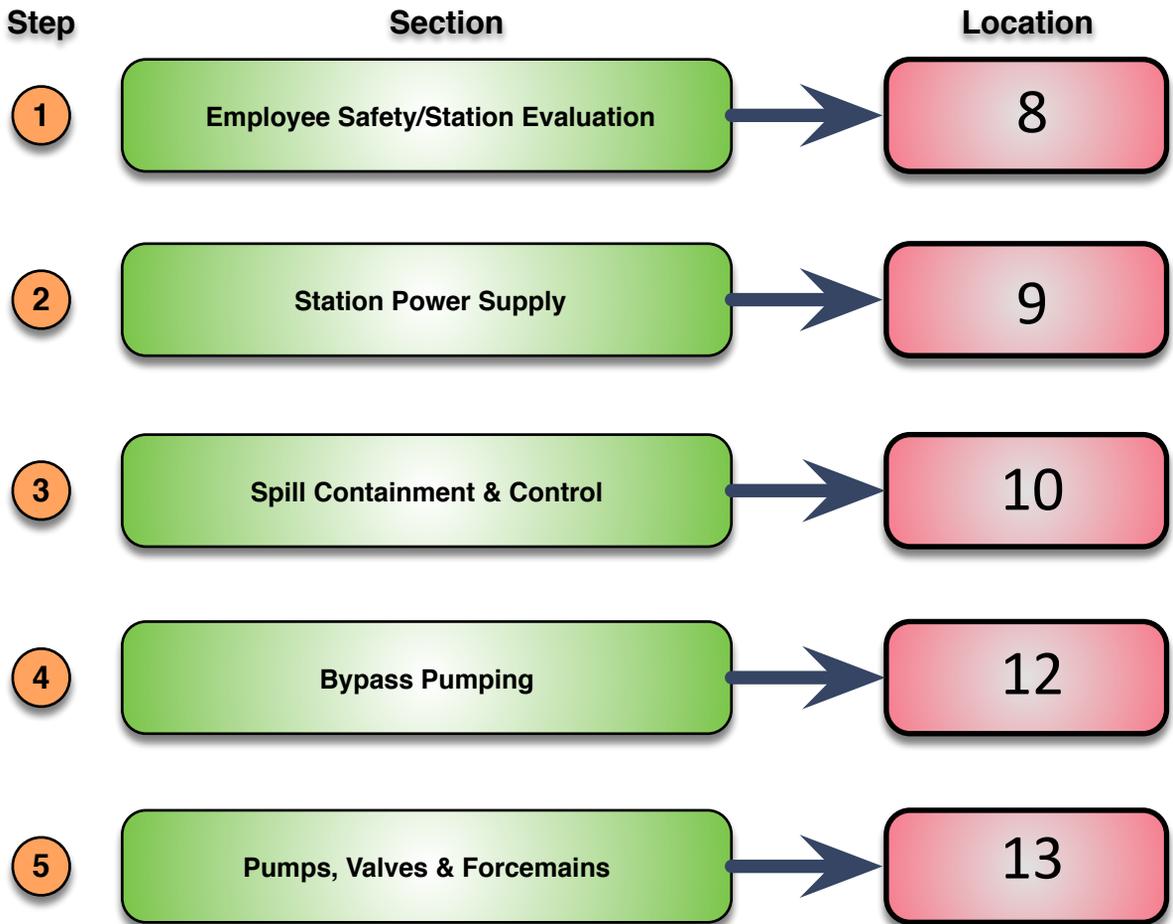
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
	Gravity Feed Only
	Force Main Discharge
	Force Main Junction
	Gravity feed junction (non specific)
	Force main & flow direction
	Gravity line & flow direction
	PS Morgan Hill managed PS
	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide Decision Tree Index



LEGEND



Initial Question



Decision Point



Page-To-Page Link



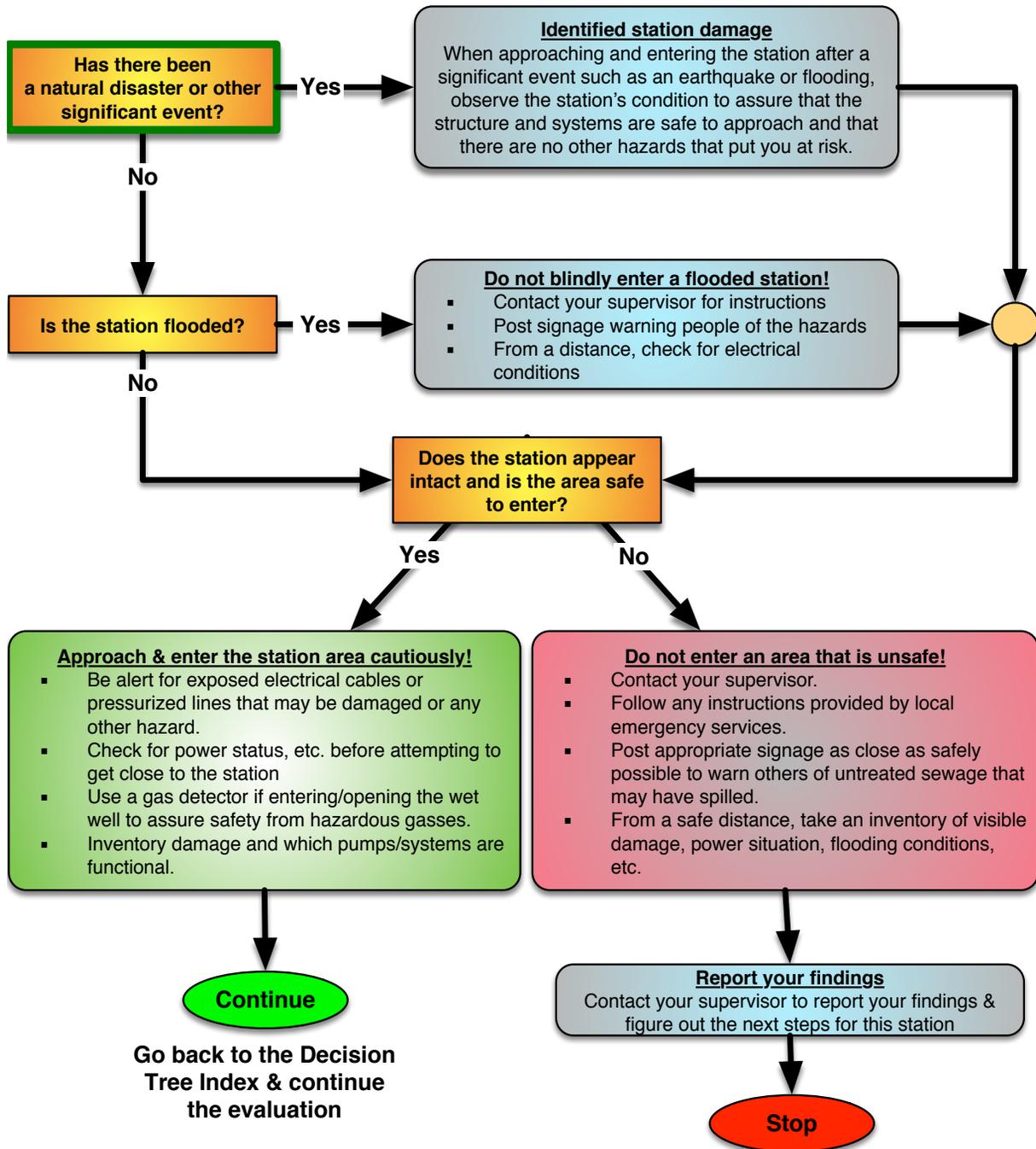
Task/Direction Item



Sequence Merge (Watch arrows for flow direction)

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

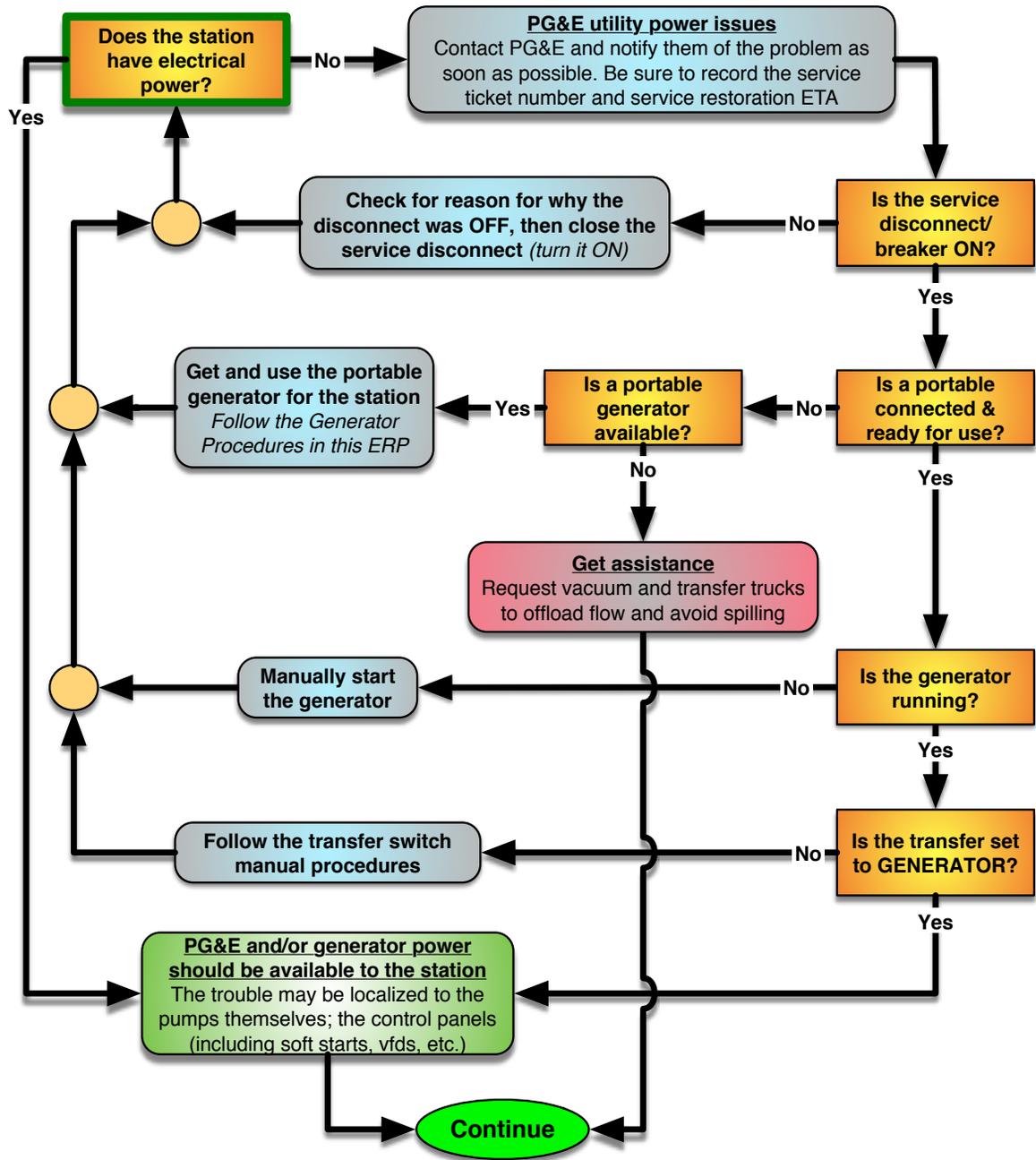


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply



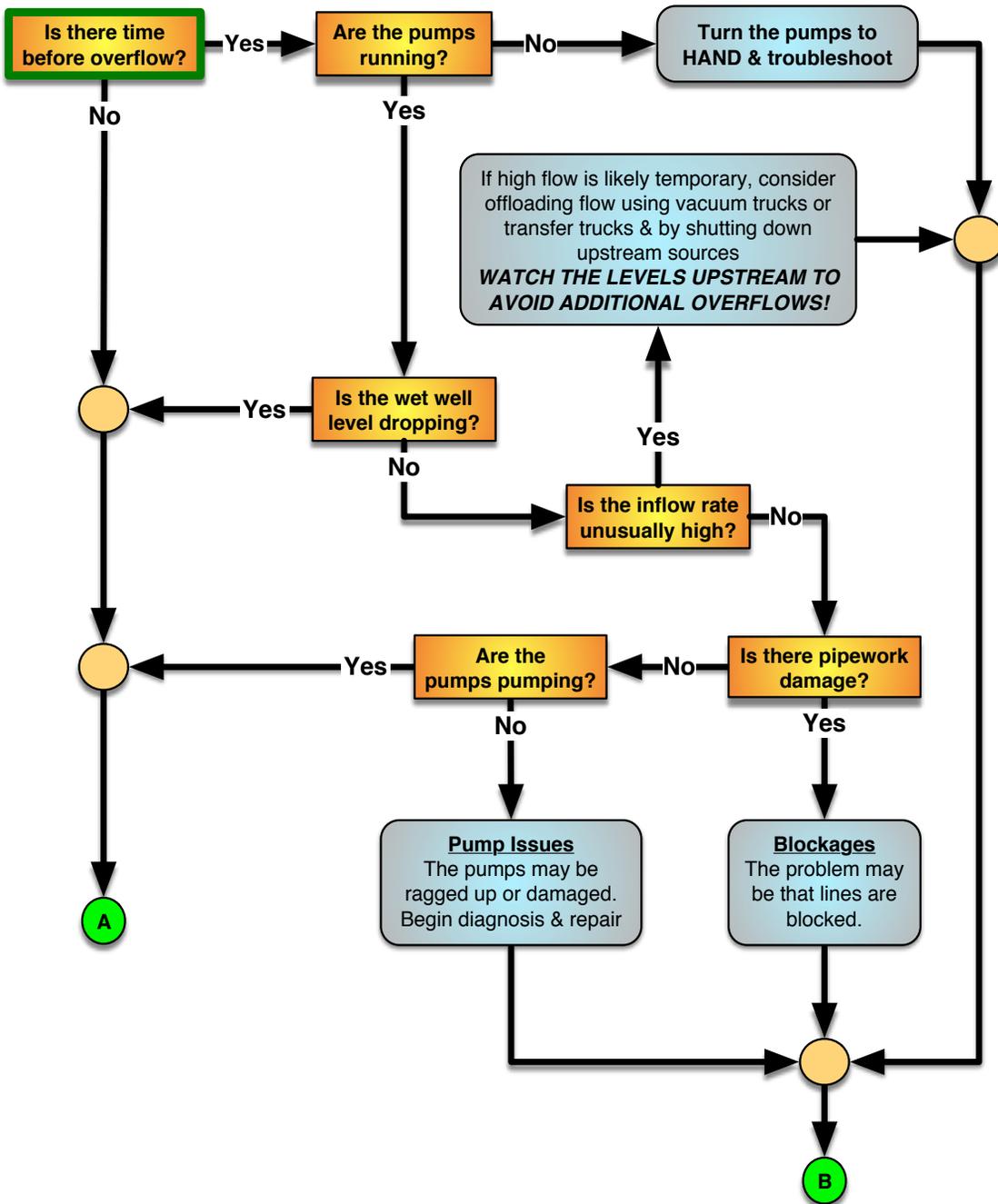
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

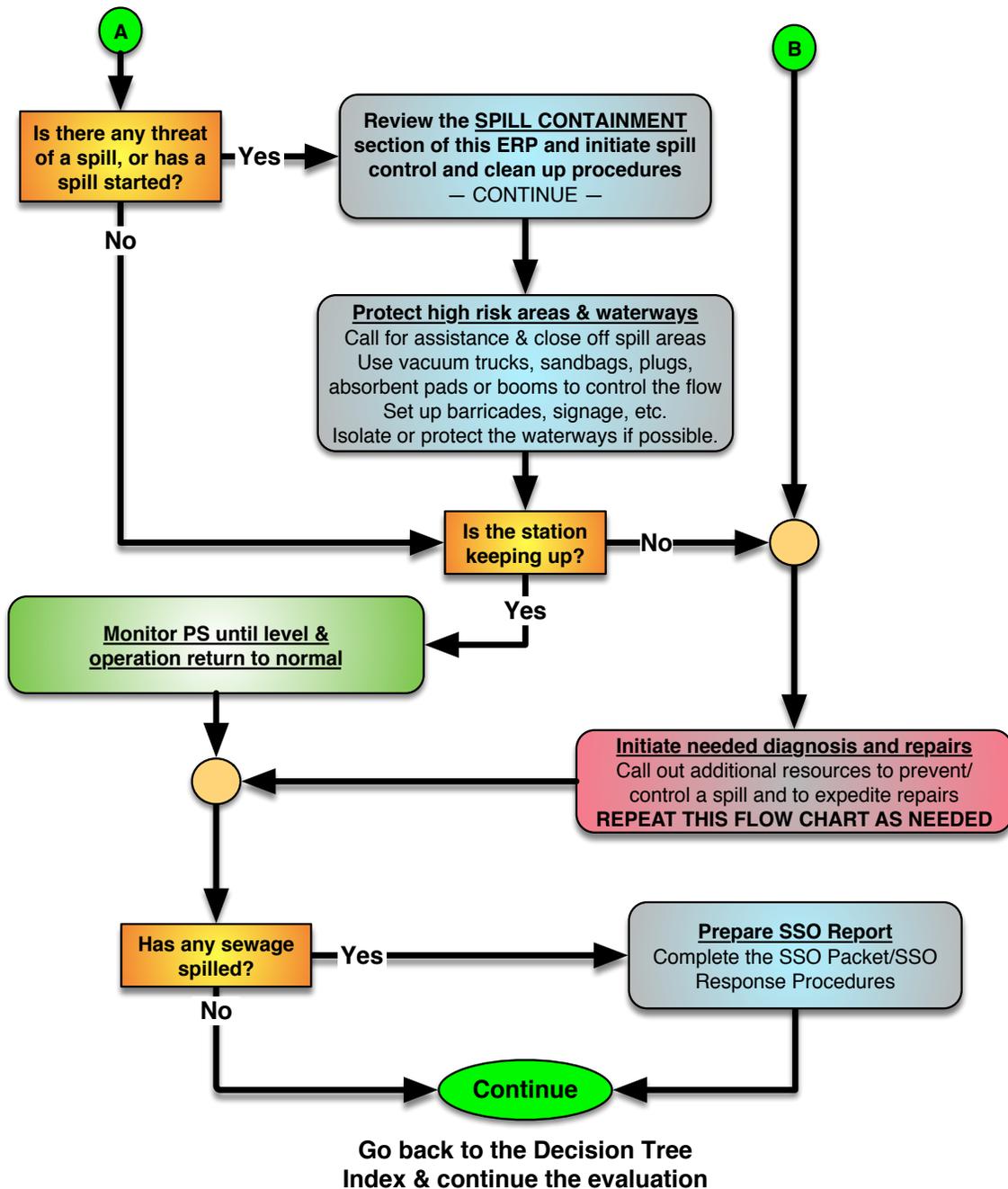
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ○ Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - *Continued*

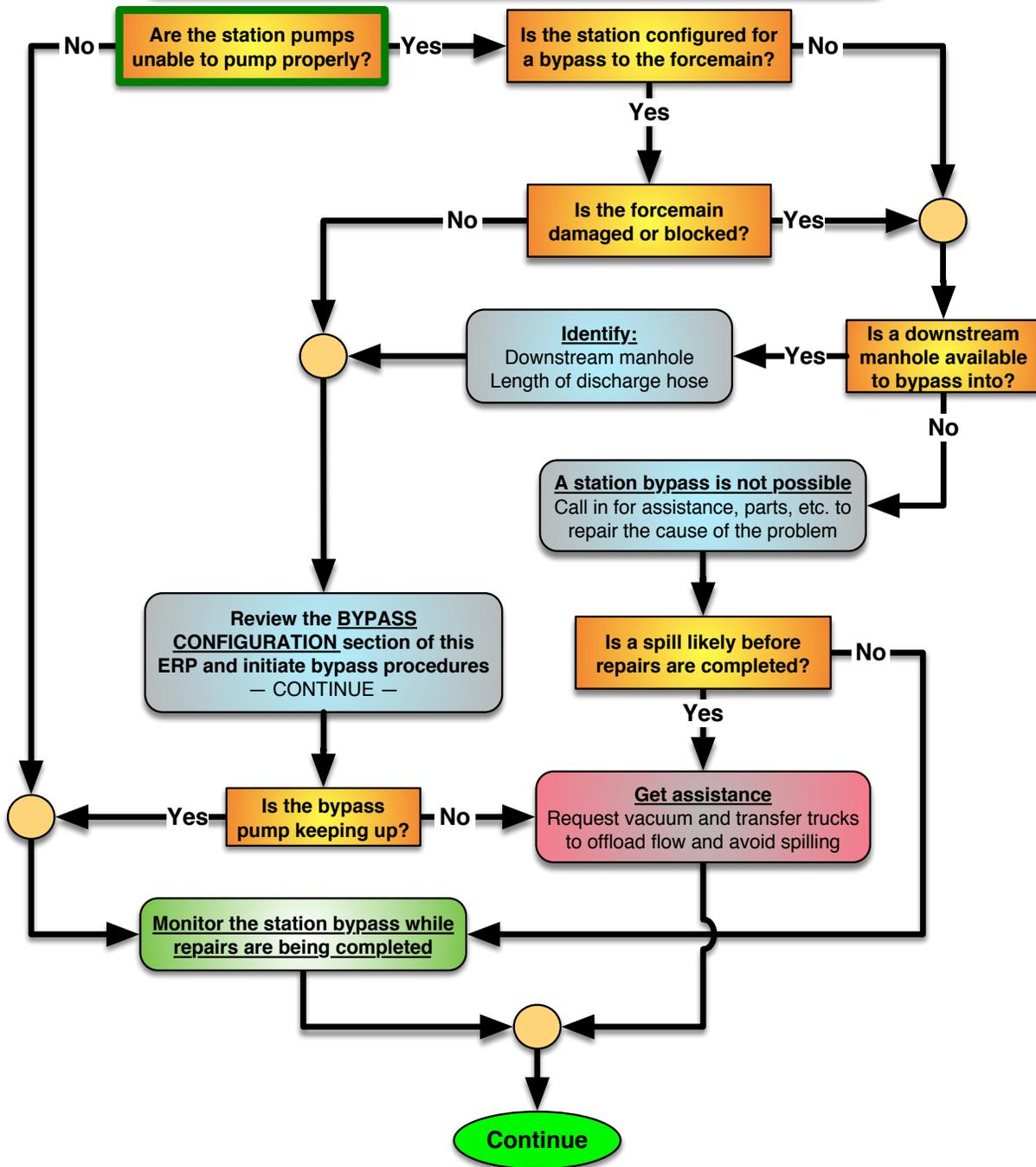


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



Go back to the Decision Tree Index & continue the evaluation

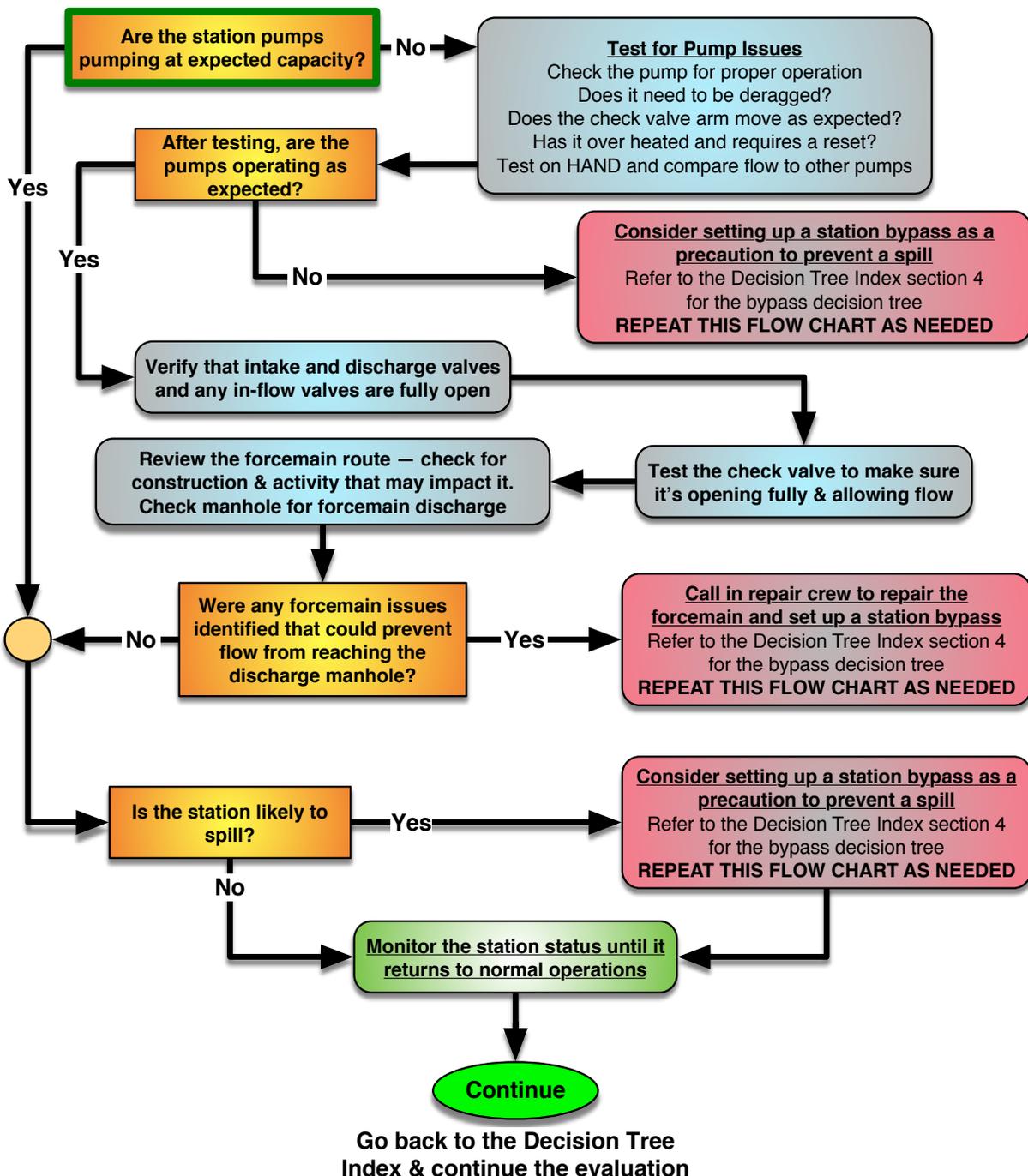
LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5

Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND



Initial Question



Page-To-Page



Sequence Merge



Decision Point



Task/Direction Item

Spill Notification Procedures

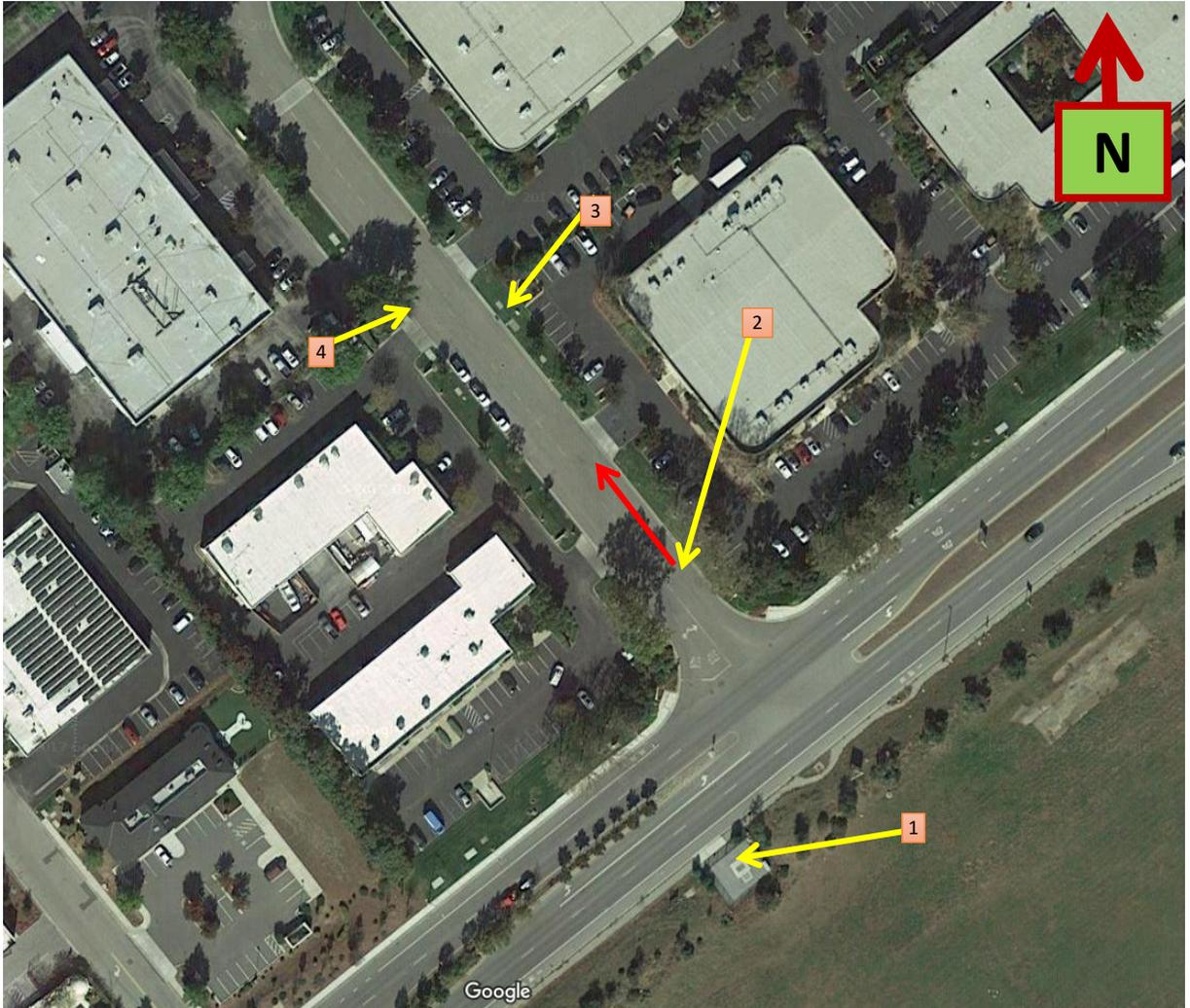
Pump Station P is located in the Jurisdiction of the
Central Coast Regional Water Control Board (#3)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

See the Contact Information Section for contact information

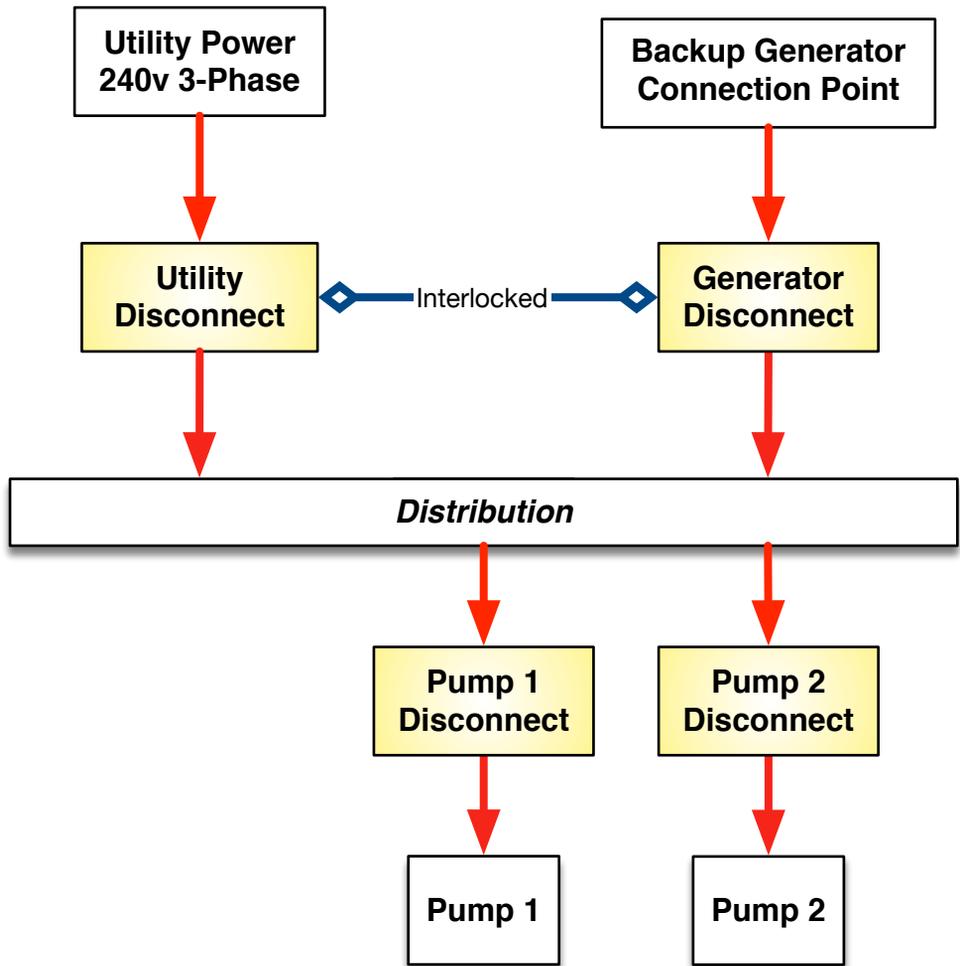
Spill Containment



Potential SSO Impact on State Water

	Type	Position from pump station	Containment
1	Pump station	-	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low point	~30' NE	
3	Storm drain inlet	~60' NW	
4	Storm drain inlet	~30' W	
5	<i>Expected flow direction from system low point (RED ARROWS ON MAP)</i>		

Pump Station Power Map



LEGEND

— 240v 3-Phase —> — 120v/240v 1-Phase —> [LOTO Point]

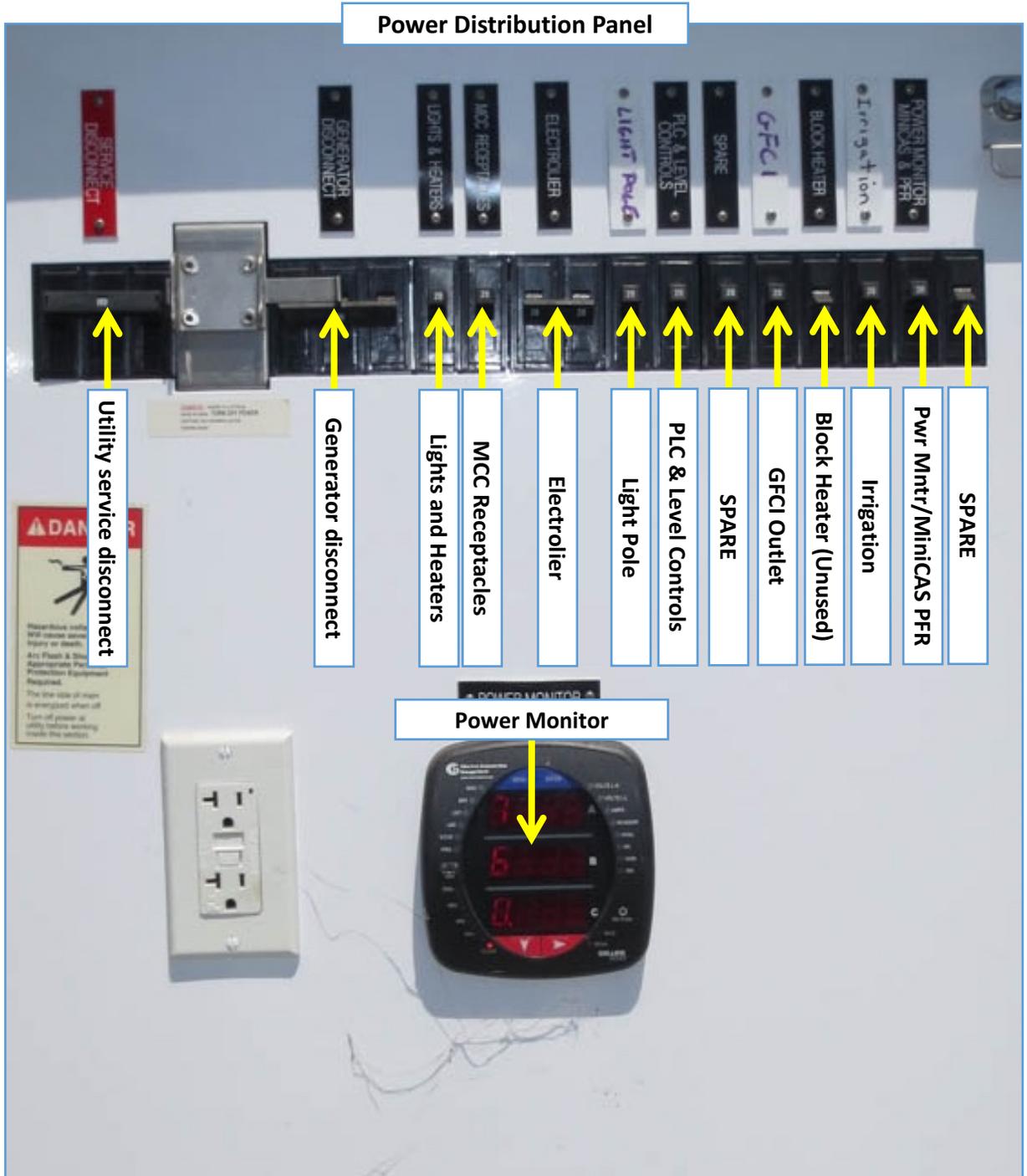
Done

Pump Station Control System



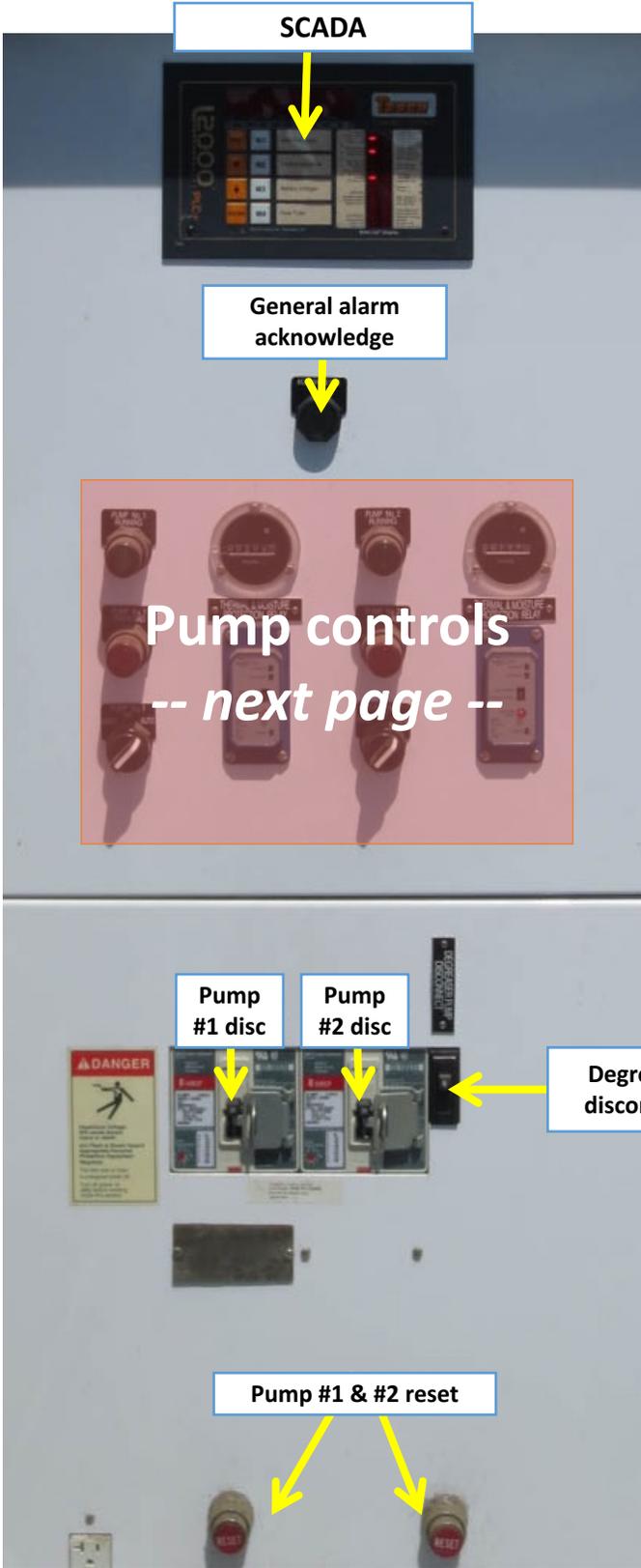
Next

Pump Station Control System



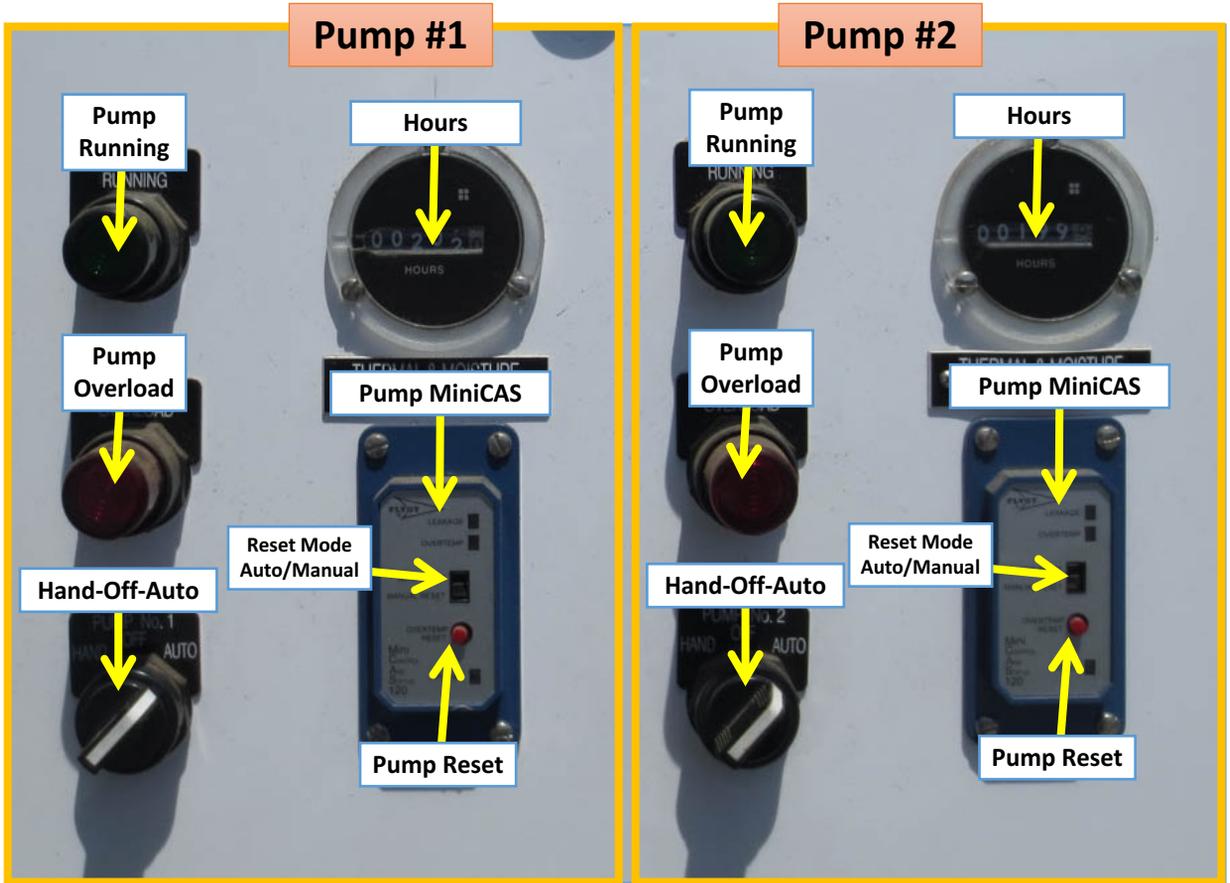
Next

Pump Station Control System



Next

Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and potentially by portable backup generator. Care must be taken to disable all energy sources.

Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

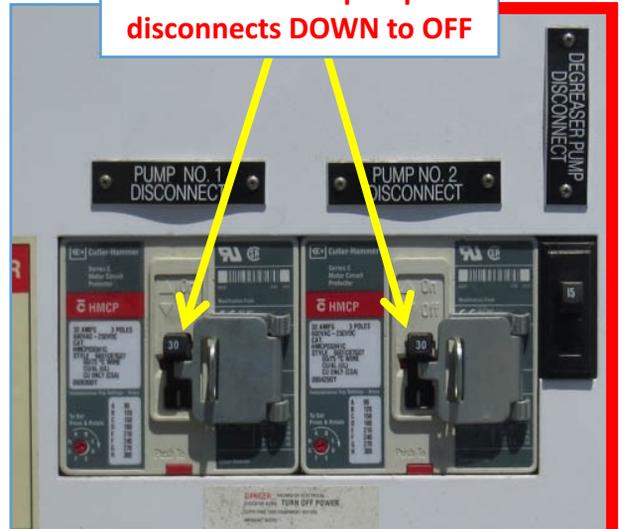
1. Reduce the load from the pump station – shut both pumps off
2. Move the pump disconnects DOWN to OFF
3. Shut down (if attached) and disable the generator
4. Move the utility service disconnect to OFF & install LOTO device & tag
5. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**

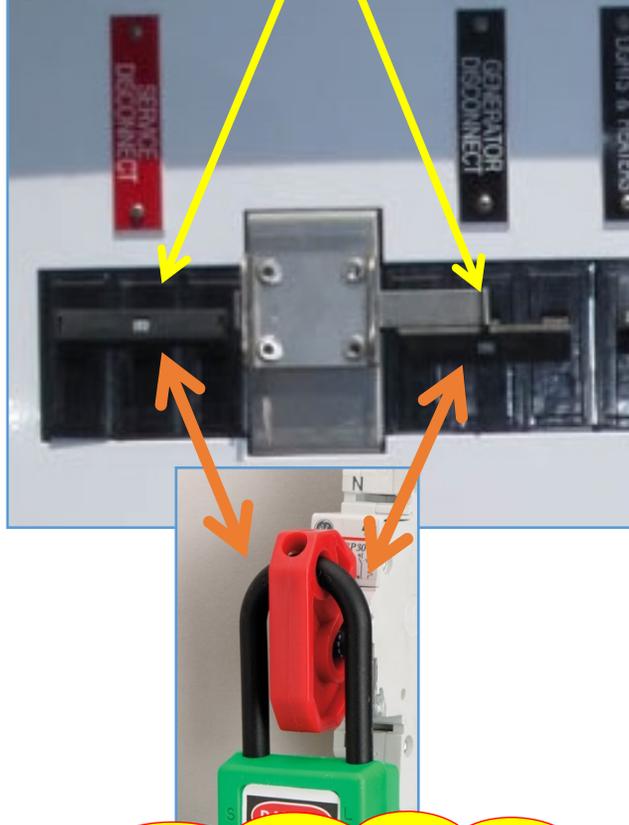


Next

Lockout/Tagout Procedures

If a portable generator is attached, shut it down and disable it from starting

**Move the utility service & generator disconnects
DOWN to OFF & install LOTO devices**



***Always test for electrical voltage at
the point of maintenance both before
and after locking out the system to
verify that it's fully locked out!***

Done

Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

On control panel for desired pump

1. Stop the pump (if running)
2. Shut down desired pump
3. Lockout & tag the pump disconnect
4. Test for voltage at the work location

Begin – At desired pump control panel

Rotate the desired pump Hand-Off-Auto switch to OFF

Move the associated pump disconnect DOWN to OFF

Install a LOTO device on the pump disconnect breaker lockout tab

Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Typical

Lockout/Tagout Procedures

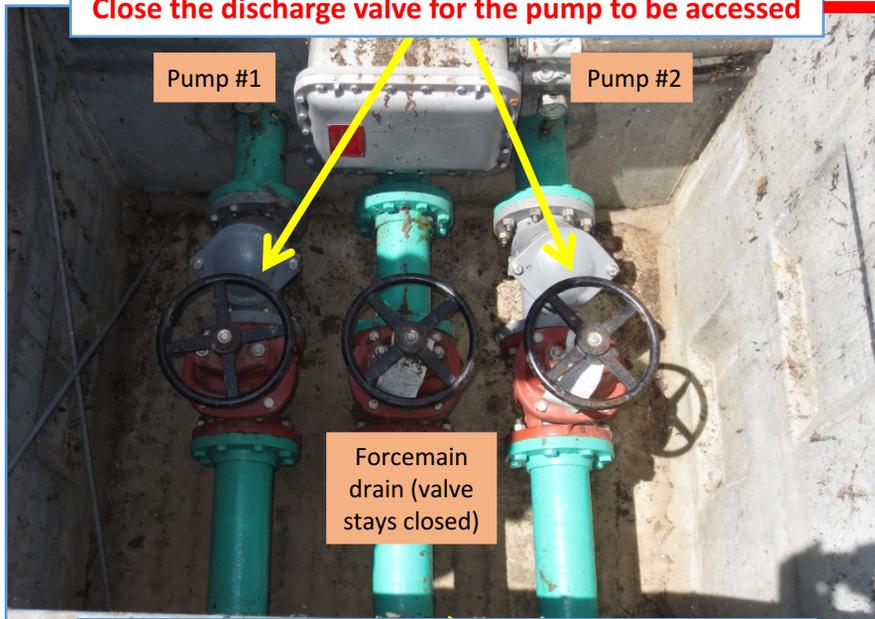
Hydraulic Pressure

Hydraulic LOTO Process

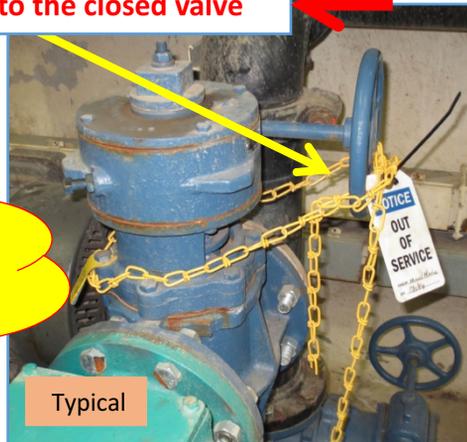
1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

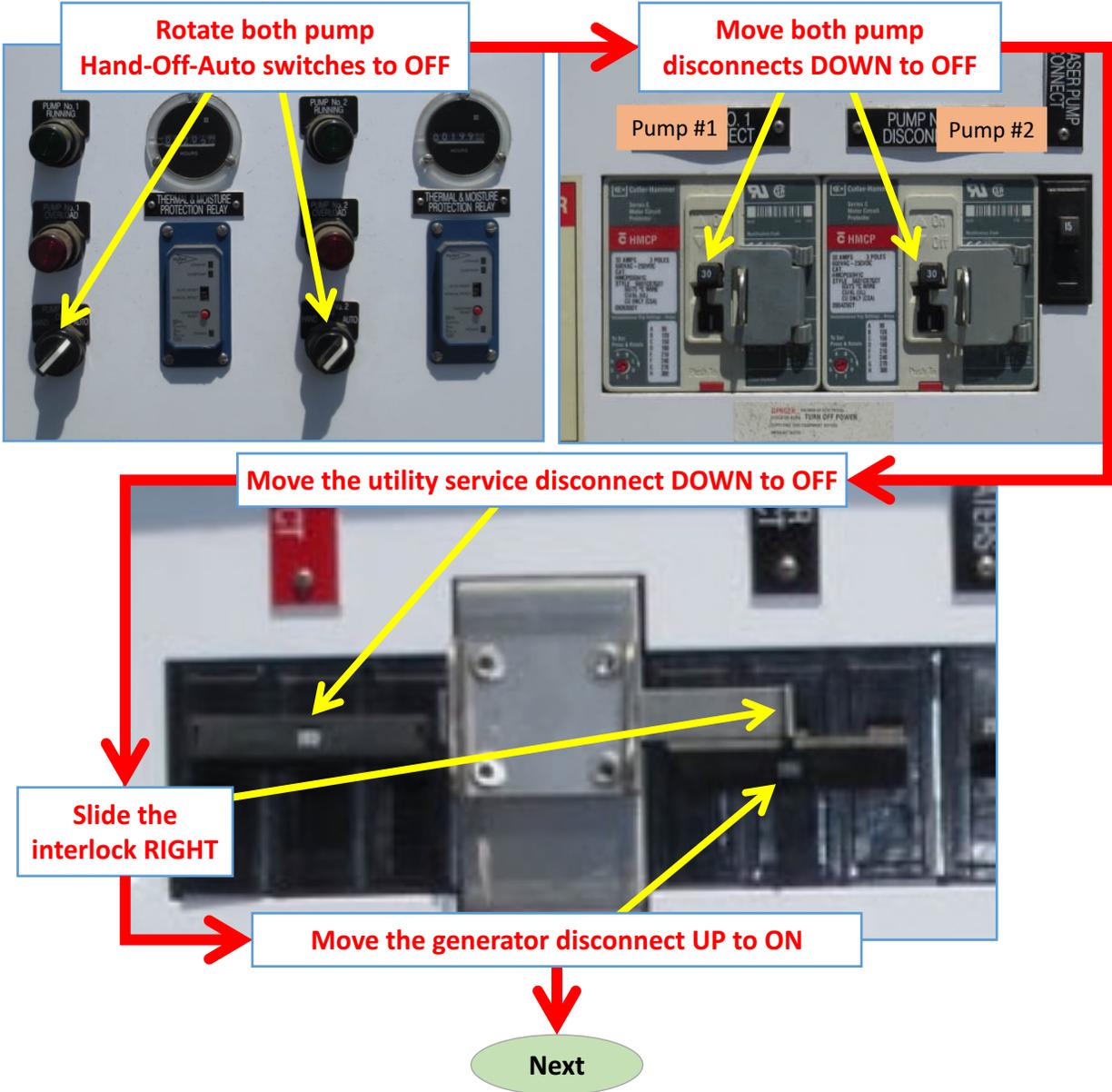
Done

Generator Operation

Portable Generator Connection & Operation

- Reduce the potential load on the station – Shut pumps off
- Shut the utility service disconnect OFF
- Unlock and move the manual transfer switch to GENERATOR
- Connect the generator
- Start the generator & then turn the generator output breaker ON
- Enable the pumps as desired

Begin



Generator Operation

**This station requires 240v 3-phase power
Be sure the generator is appropriately sized and configured for use**

**Connect the portable generator to the
emergency generator power port**



**Follow the appropriate Portable Generator Procedures for
starting and bringing the portable generator online
→ *Once it's operating, continue***

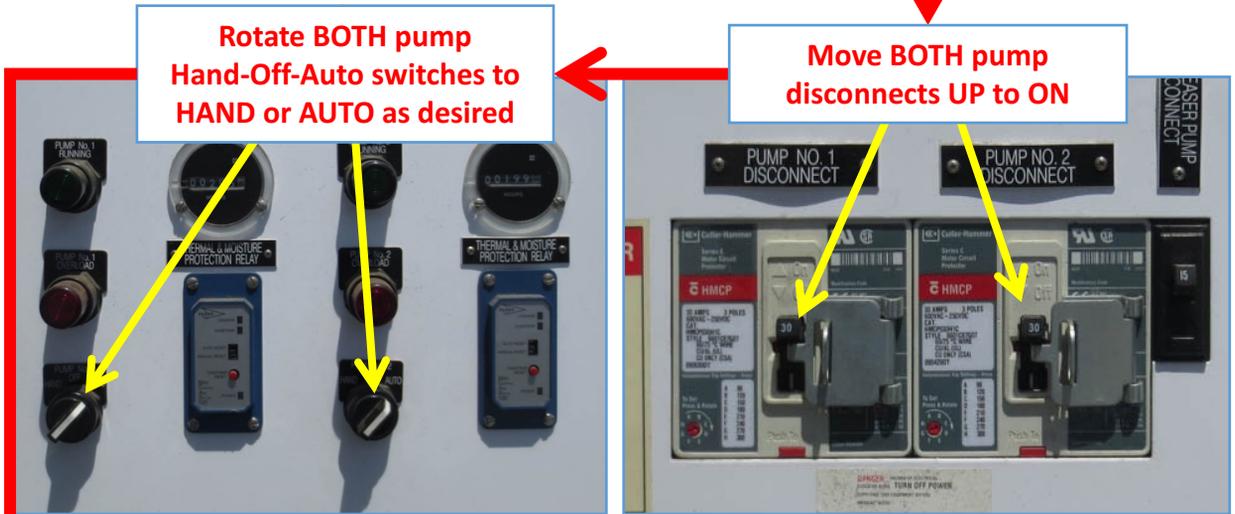
Next

Generator Operation

AS DESIRED: Enable station systems

**Rotate BOTH pump
Hand-Off-Auto switches to
HAND or AUTO as desired**

**Move BOTH pump
disconnects UP to ON**



At this point, the station should be running on generator power and completely independent of utility grid power

Done

Generator Operation

To return to utility power

- Reduce the potential load on the station – Shut pumps off
- Shut the generator OFF & disconnect the generator
- Unlock and move the manual transfer switch to UTILITY/PG&E POWER
- Move the main utility service breaker to ON
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



**Move BOTH pump
disconnects DOWN to OFF**



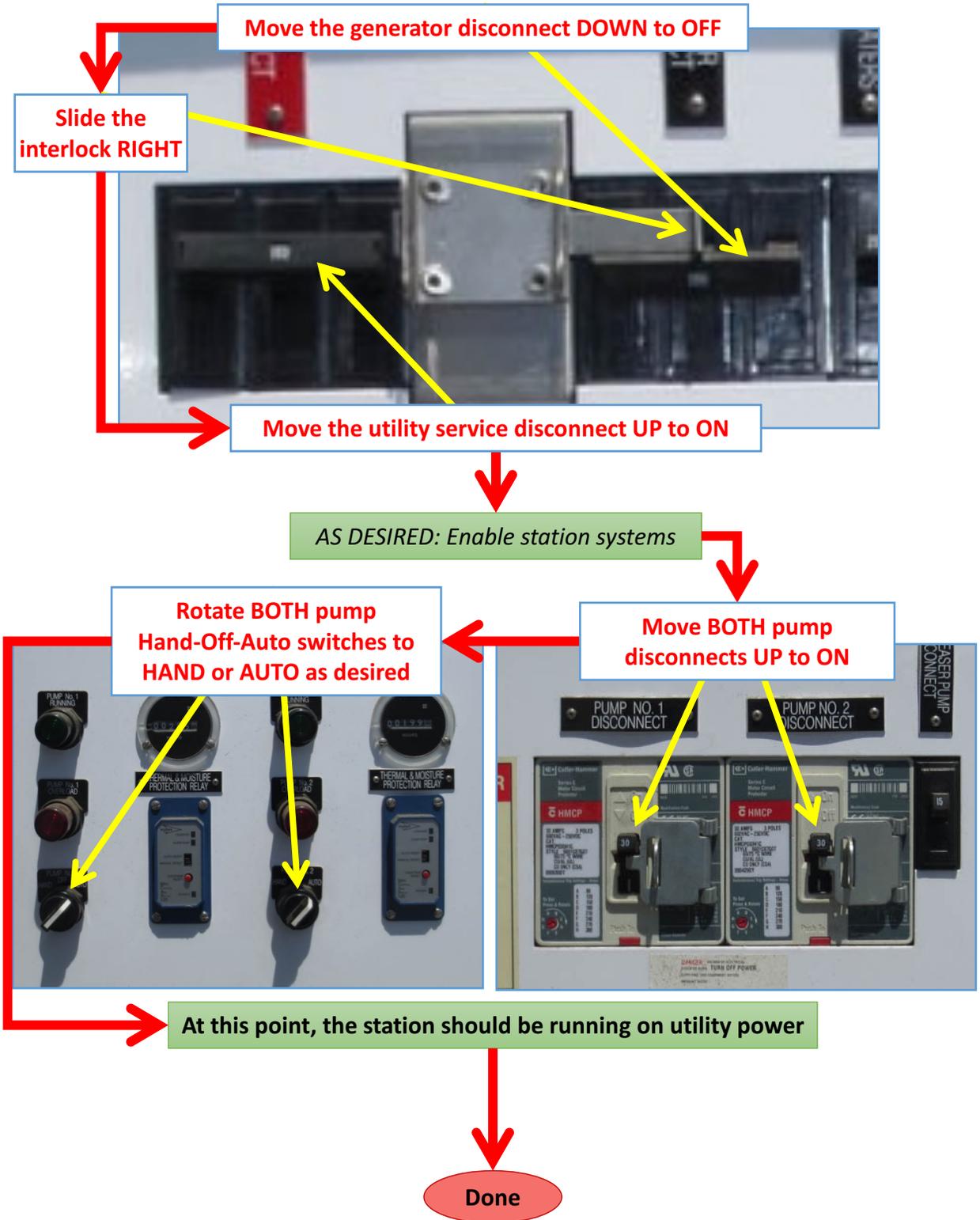
**Follow the appropriate Portable Generator Procedures
for shut down and disabling the portable generator
→ Once it's fully stopped, continue**

**Disconnect the portable generator from
the emergency generator power port**



Next

Generator Operation



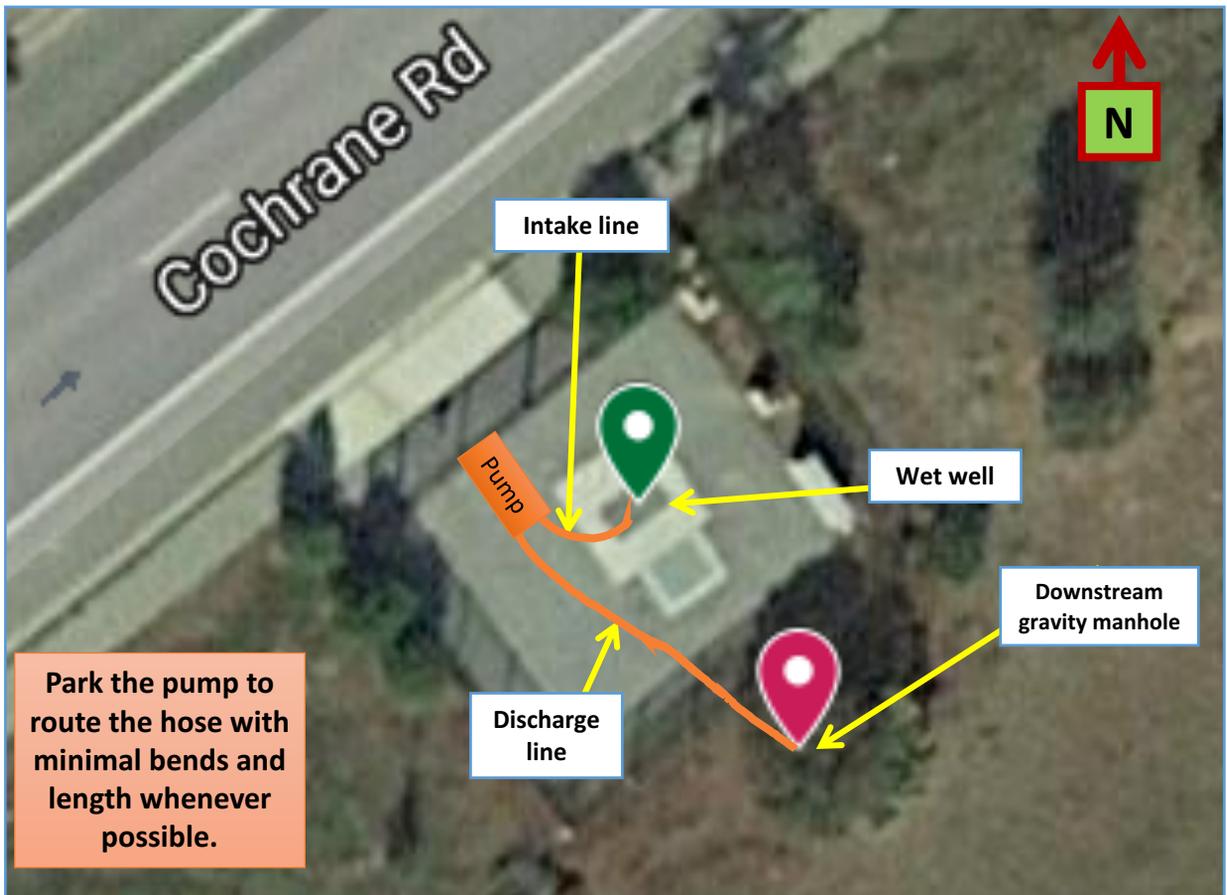
Bypass to Downstream Manhole

Procedure Summary

Configure the station for bypass:

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump; route the hose to the nearest gravity manhole
- Verify all connections
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the pump down & relieve any residual pressure
 - Disconnect the hoses and clean up
 - Return the station to normal operations

Begin Procedure

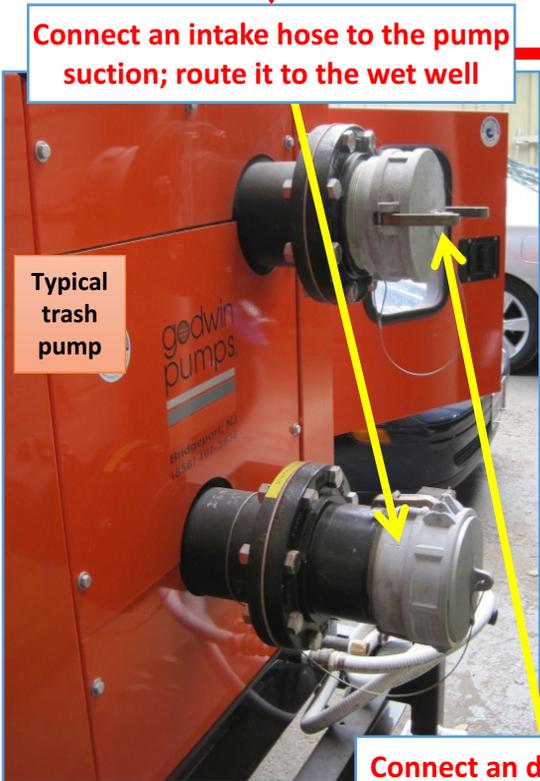


Next

Bypass to Downstream Manhole

Park & prepare the trash pump
Select a parking spot to limit hose bending

Set up appropriate traffic control devices as needed



Connect an intake hose to the pump suction; route it to the wet well

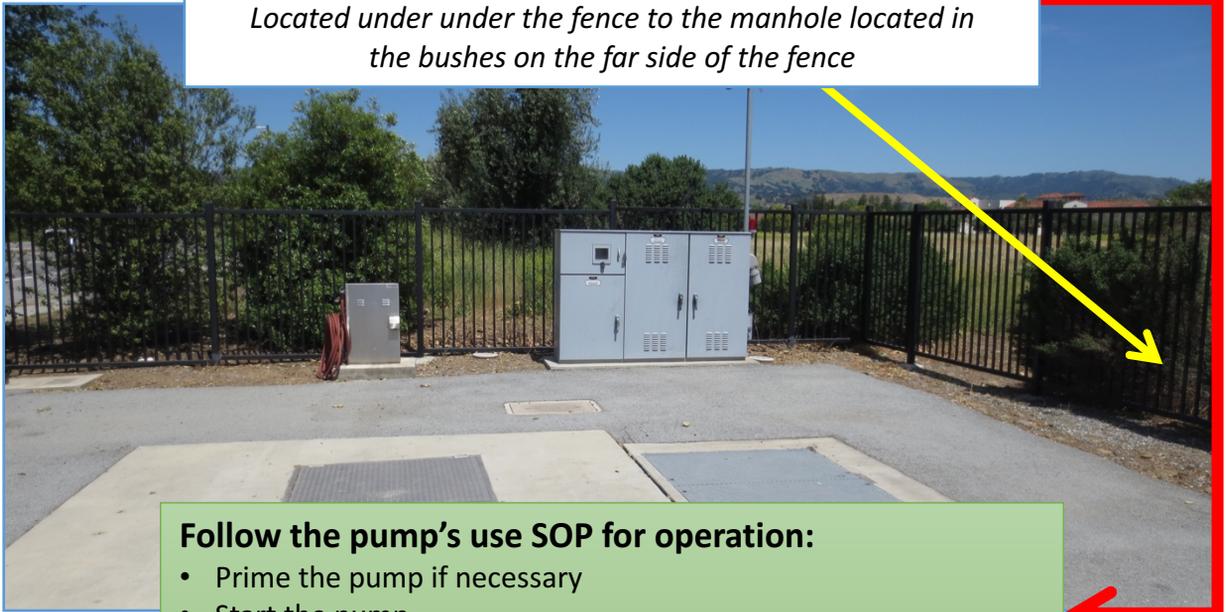


Connect an discharge hose to the pump discharge port

Next

Bypass to Downstream Manhole

Route the discharge to the discharge point
Approx. GPS for the Discharge MH: 37.148365, -121.65919
Located under under the fence to the manhole located in the bushes on the far side of the fence



Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Relieve any residual pressure in the discharge line
- Carefully disconnect, drain & stow the discharge line → ***Be careful to release any residual pressure and sewage back into the wet well to avoid a spill!***
- Close the downstream manhole
- Carefully disconnect, drain & stow the intake line
- Close the wet well
- Return the station to normal operations as desired
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map

City of Morgan Hill

Pump Station Emergency Response Plan

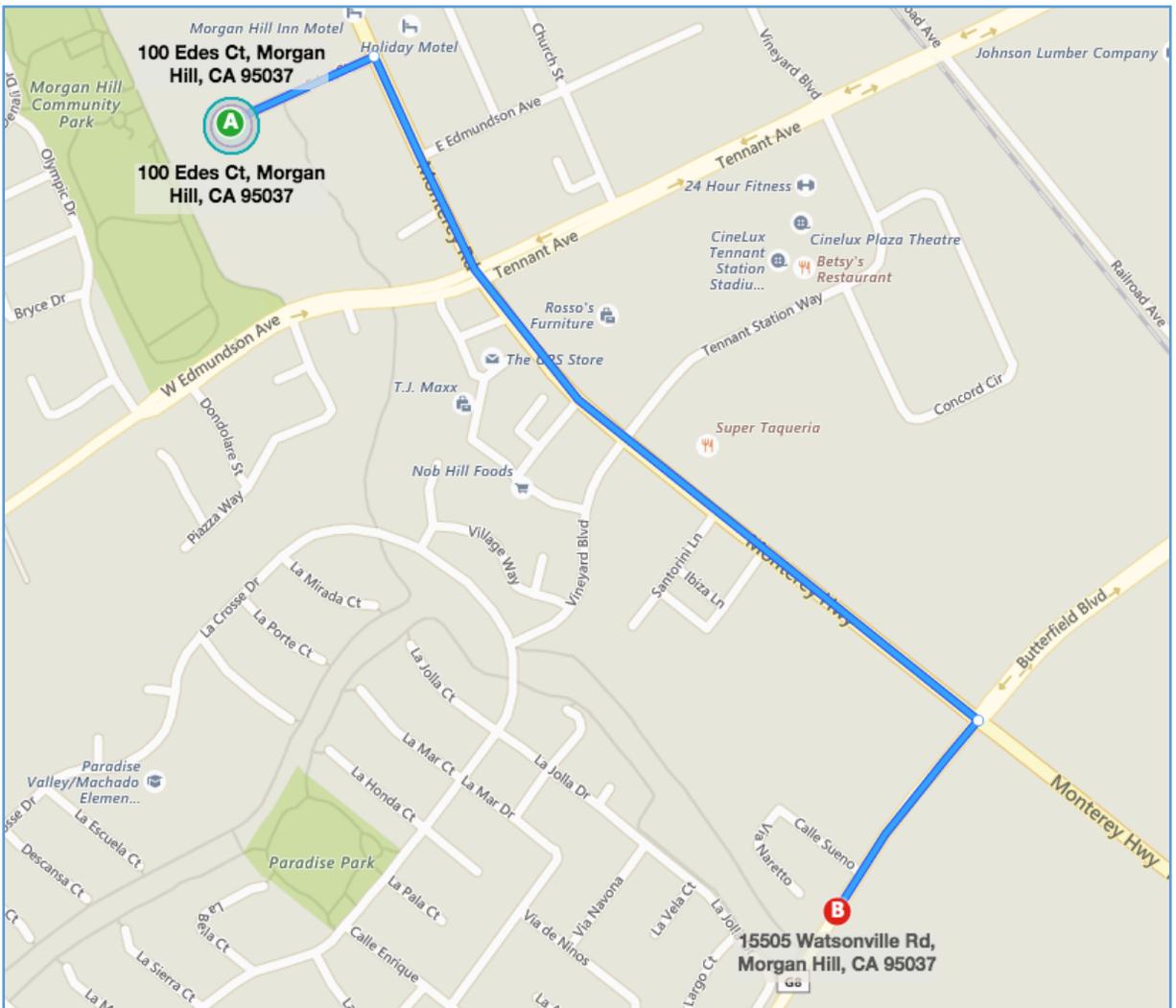


Pump Station PS-W
15505 Watsonville Road

Table of Contents	
Pump Station Technical Information	3
Hazards & Cautions	5
Pump Station Network	6
Overflow Decision Tree	7
Spill Notification Procedures	14
Spill Containment	15
Pump Station Power Map	16
Pump Station Control System	17
Lockout/Tagout Procedures	20
Generator Operation	24
Bypass to Downstream Manhole	29
Contact Information	32
System Map	36

Pump Station Technical Information

Name	PS-W – Watsonville Road Pump Station
Address	15505 Watsonville Rd, Morgan Hill, CA 95037
Lat., Long.	37.105113, -121.638068
Directions	<p>From the City of Morgan Hill Corporation Yard at 100 Edes Ct</p> <ul style="list-style-type: none"> Depart Edes Ct. toward Monterey St./Monterey Hwy Turn Left onto Monterey St/Hwy. Turn Right onto Watsonville Rd. The pump station will be on the right.



Pump Station Technical Information

Station Information

Wet well dimensions & capacity	Tank 1: 8' diameter x 21' deep; 7,896 gallons Tank 2: 6' diameter x 22' deep; 4,653 gallons Total Capacity: 12,549 gallons
Est. hold time (dry weather)	3.5 hours
Low point (likely overflow point)	The manholes in the pump station boundary Approx. GPS: 37.105077, -121.638107
Upstream pump station(s)	Gravity only
Downstream pump station	WWTP
Forcemain Data	6" x 70'
Discharge location	37.105141, -121.637863

Pump Capacities

Pump	Motor & Pump	Capacity
#1	Flygt 3102/462, 5hp, 240v 3-phase	170 gpm
#2	Flygt 3102/462, 5hp, 240v 3-phase	170 gpm

Station Power

Primary Power	PG&E Supply voltage	240v, 3-phase (with one single 208 stinger leg, phase to ground)
	PG&E Account #	1033038065
	PG&E Meter #	1009448582
	PG&E Outage Block	3
	Priority	Sewer pump station
Backup Generator	The station is not equipped with a permanently installed backup generator, however it is equipped with a manual transfer switch and a quick connect for a portable generator	
Station Bypass Port Configuration	The station is not equipped with a force main bypass port, however as the force main discharge point is only 70' from the wet well the station may be bypassed using a pump and hose.	

Hazards & Cautions

Traffic Control

Follow the MUTCD, CalOSHA safety, and agency personal protective equipment requirements for addressing traffic hazards when working in the public right of way. Provide detours to keep vehicles from entering any spill areas. Emergency response vehicles & equipment may require dedicated space marked by cones or barricades. Consider the use of:

Barricades	Cones
Signage	Caution Tape
Flares	Flaggers

Provide appropriate signage, caution tape or other means to inform the public of the spill and keep them from any inadvertent contact.

Obstacles and Crossings

Must be considered if bypassing a failed force main, particularly when crossing parking areas, driveways and roadways.

Safety Hazards

Electrical Hazards: Follow LOTO procedures when de-energizing and locking out electrical equipment. Always verify that all forms of stored energy are controlled prior to initiating exposure.

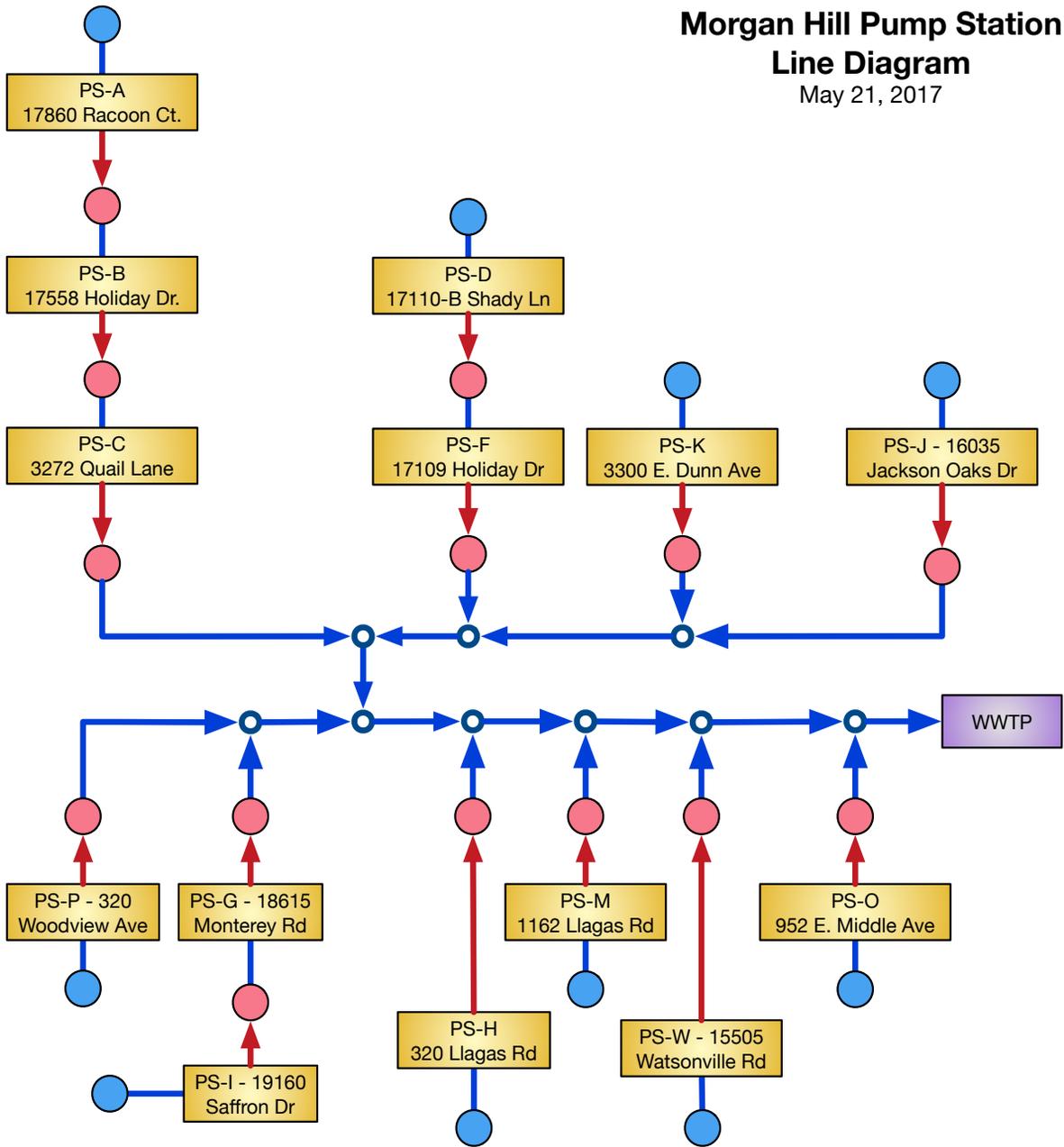
Sanitary Hazards: Wear latex gloves with PVC/Rubber over-gloves and safety glasses when handling equipment contaminated with raw sewage (when splashing/aerosols are likely to occur).

In addition to following good work practices and CalOSHA regulations, always follow agency programs for:

Confined Space	Lockout/Tagout
Traffic Control	PPE Selection & Use
Respiratory Protection	Any other policy, safe practice or rule, as required.

Pump Station Network

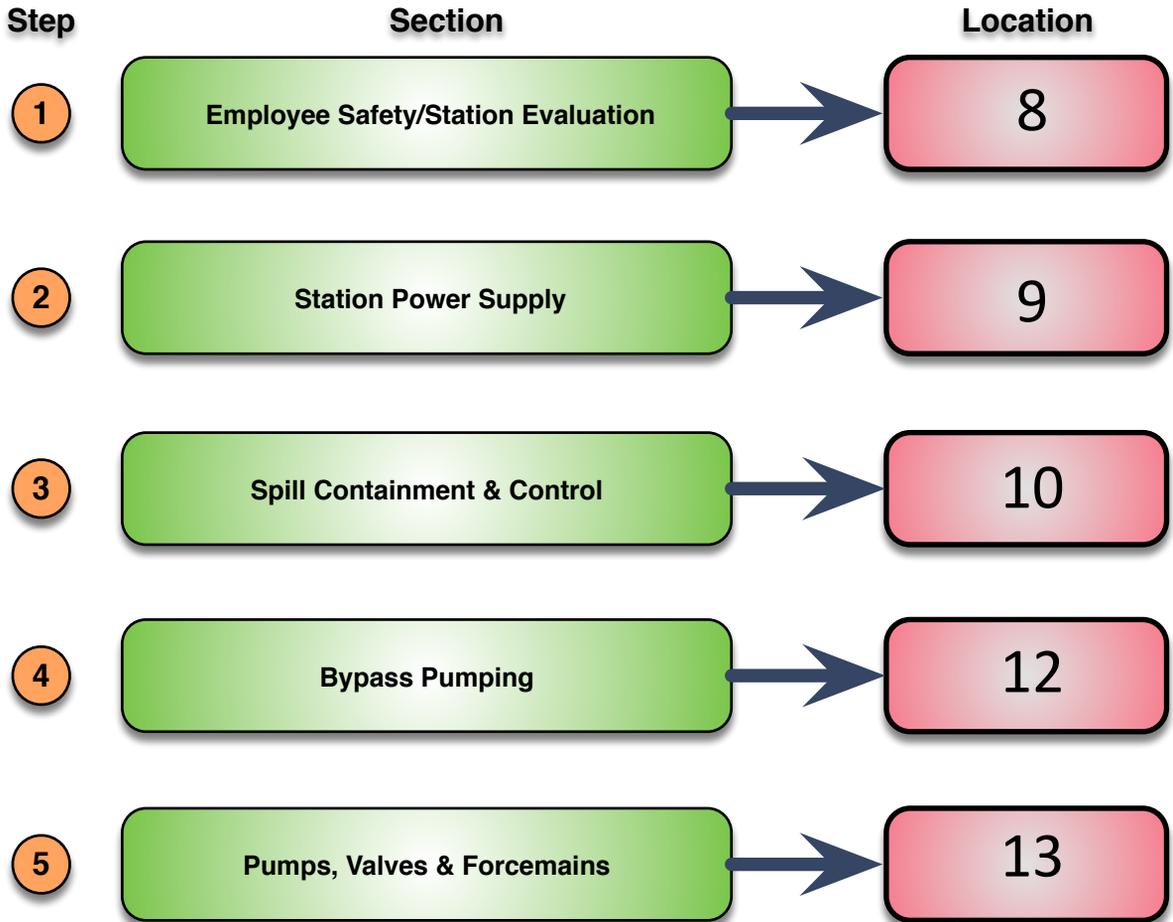
**Morgan Hill Pump Station
Line Diagram**
May 21, 2017



LEGEND	
● Gravity Feed Only	→ Force main & flow direction
● Force Main Discharge	→ Gravity line & flow direction
◆ Force Main Junction	PS Morgan Hill managed PS
○ Gravity feed junction (non specific)	WWTP Non-Morgan Hill managed

Overflow – Decision Tree

Pump Station Emergency Response Guide Decision Tree Index



LEGEND



Initial Question



Decision Point



Page-To-Page Link



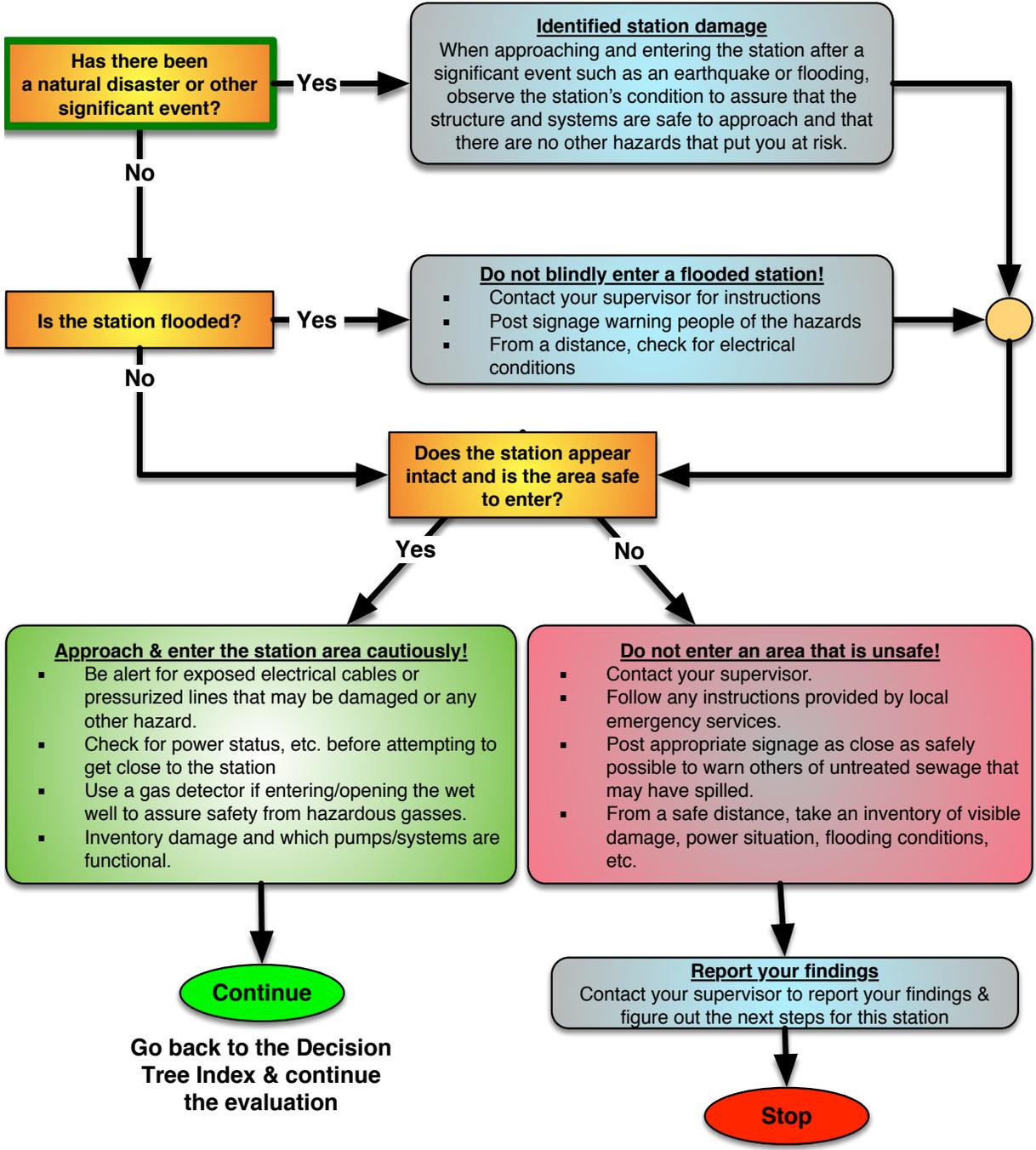
Task/Direction Item



Sequence Merge (Watch arrows for flow direction)

Overflow – Decision Tree

1 Pump Station Emergency Response Guide Employee Safety/Station Evaluation

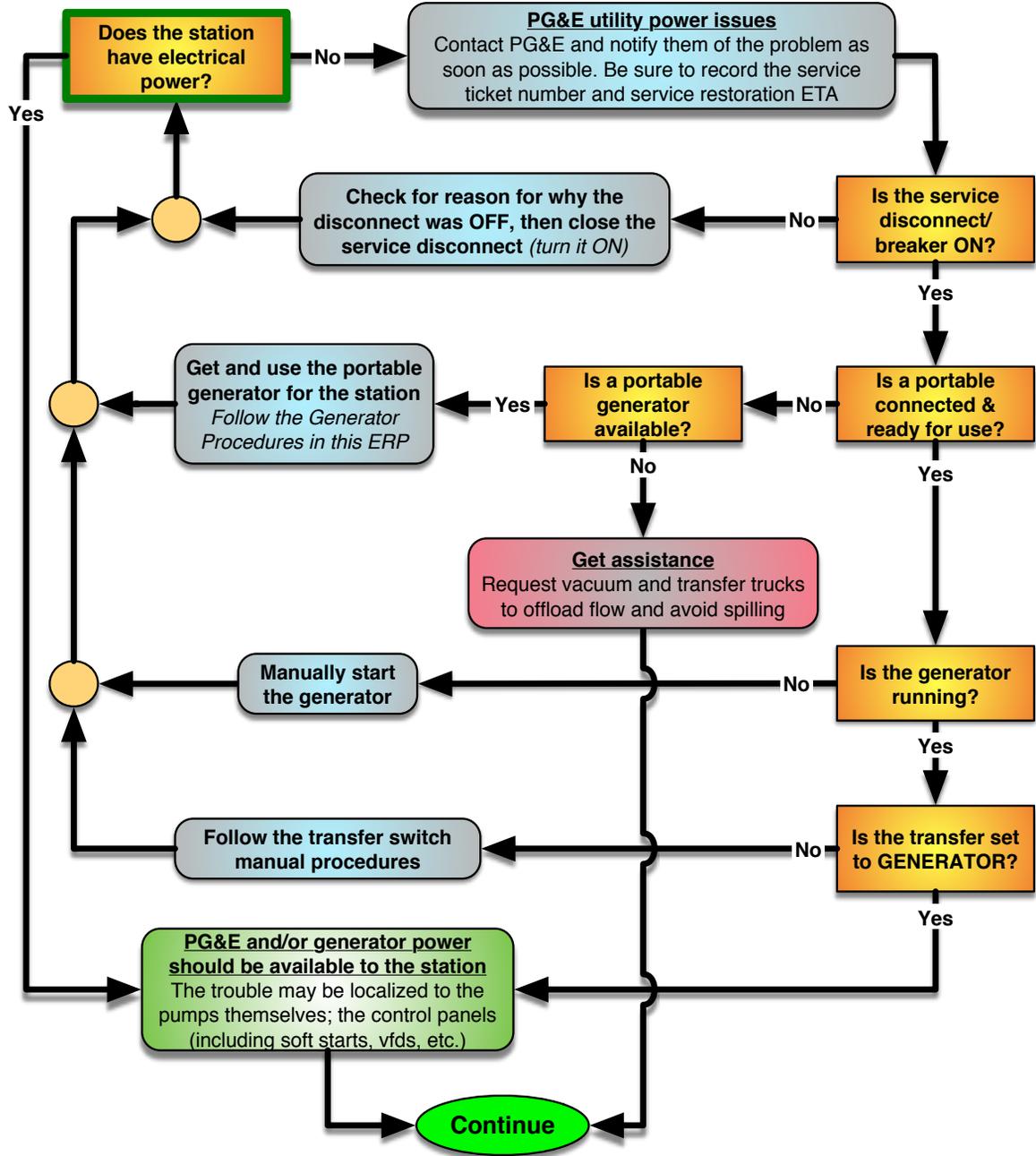


LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

2 Pump Station Emergency Response Guide Station Power Supply



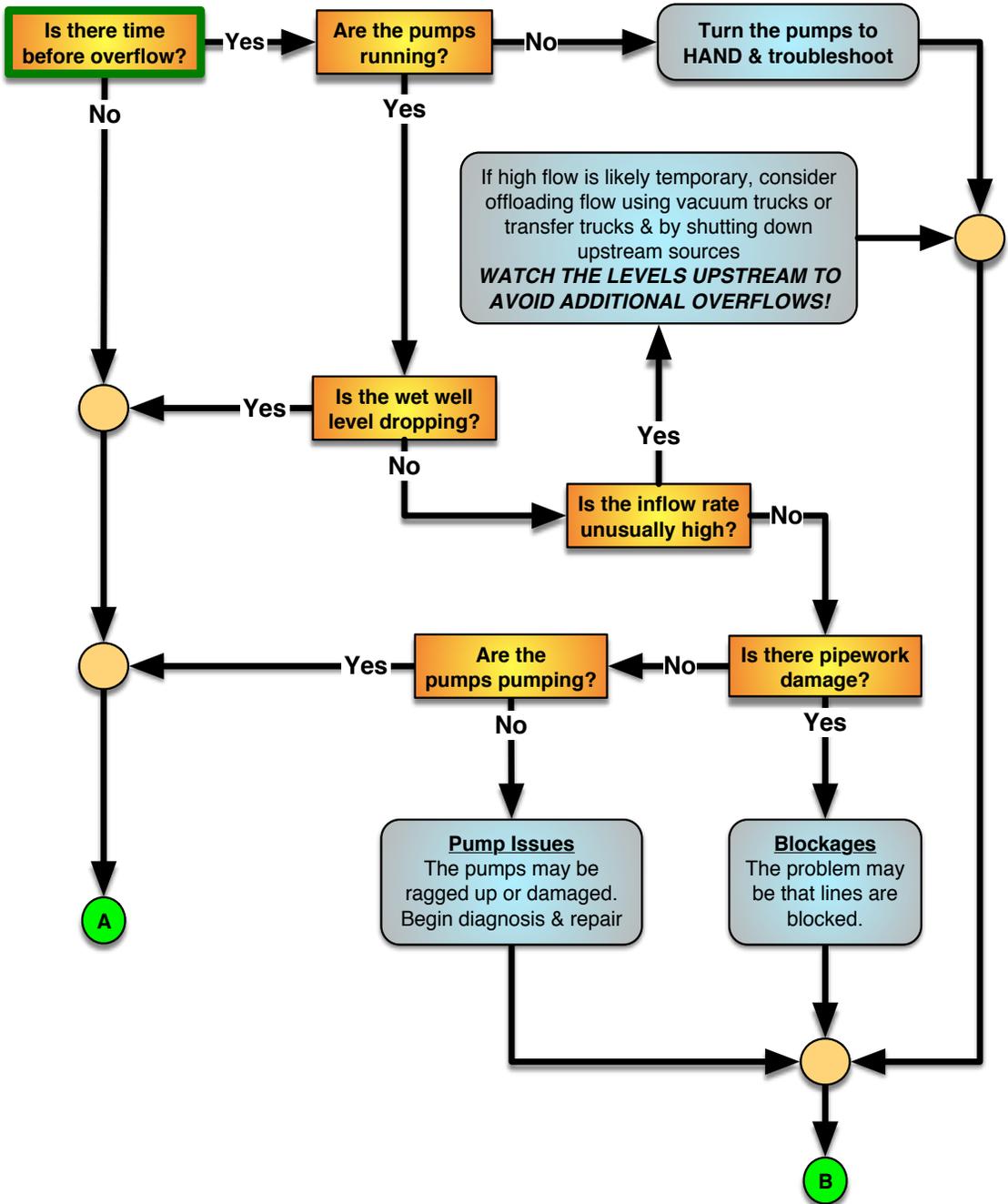
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

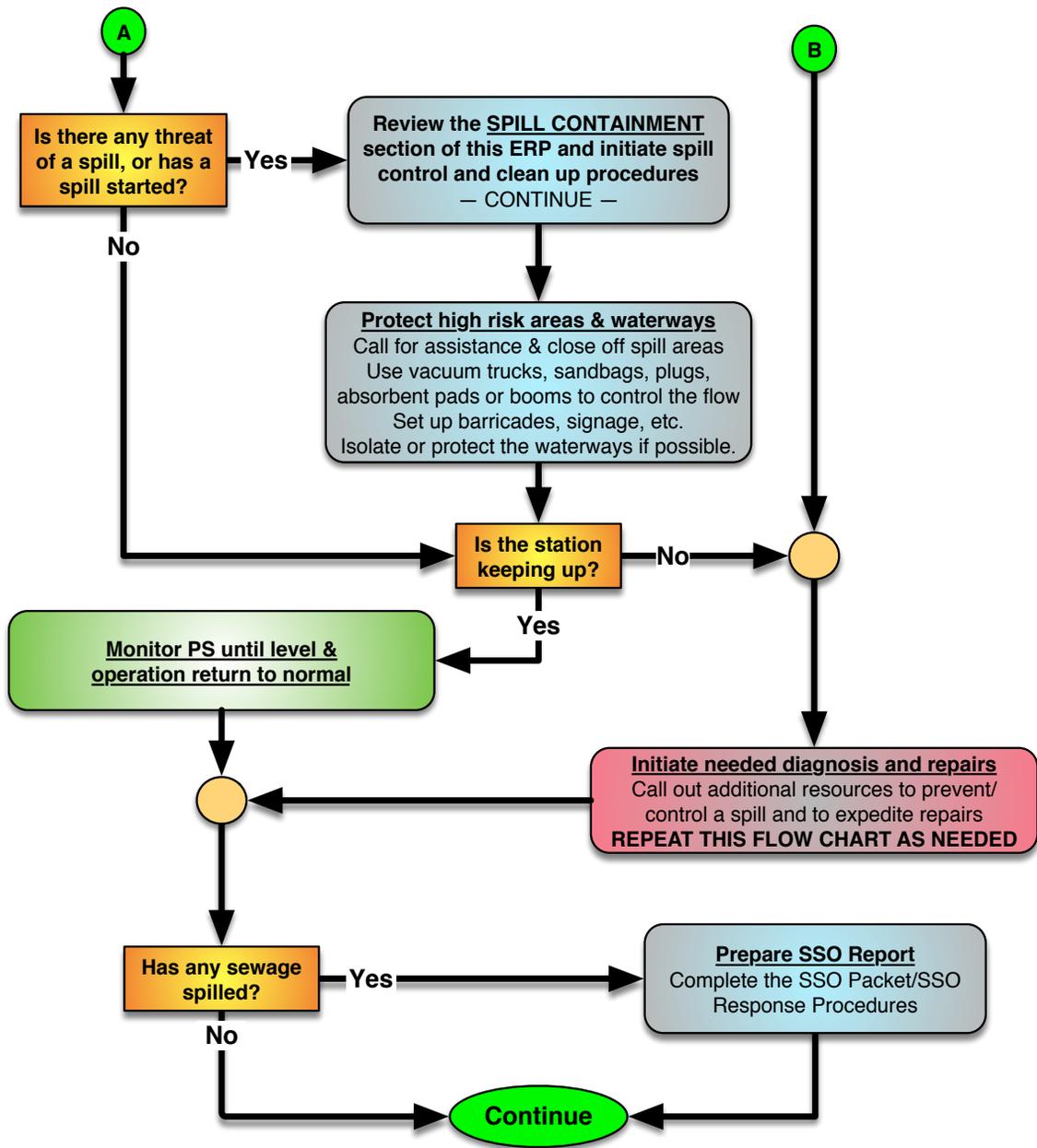
3 Pump Station Emergency Response Guide Spill Containment & Control



LEGEND ? Initial Question X Page-To-Page ○ Sequence Merge □ Decision Point ● Task/Direction Item

Overflow – Decision Tree

3 Pump Station Emergency Response Guide Spill Containment & Control - *Continued*



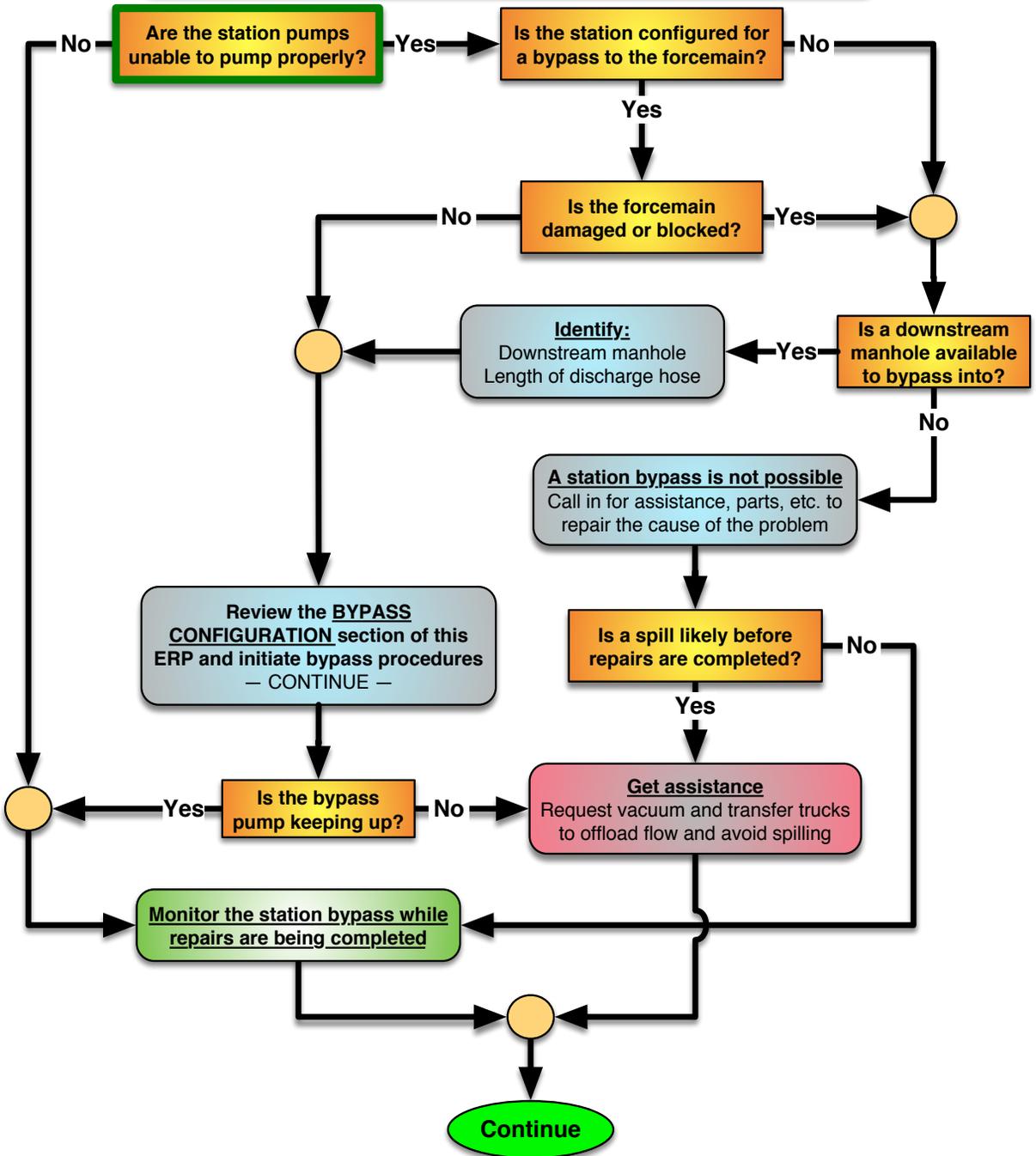
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

4 Pump Station Emergency Response Guide Bypass Pumping



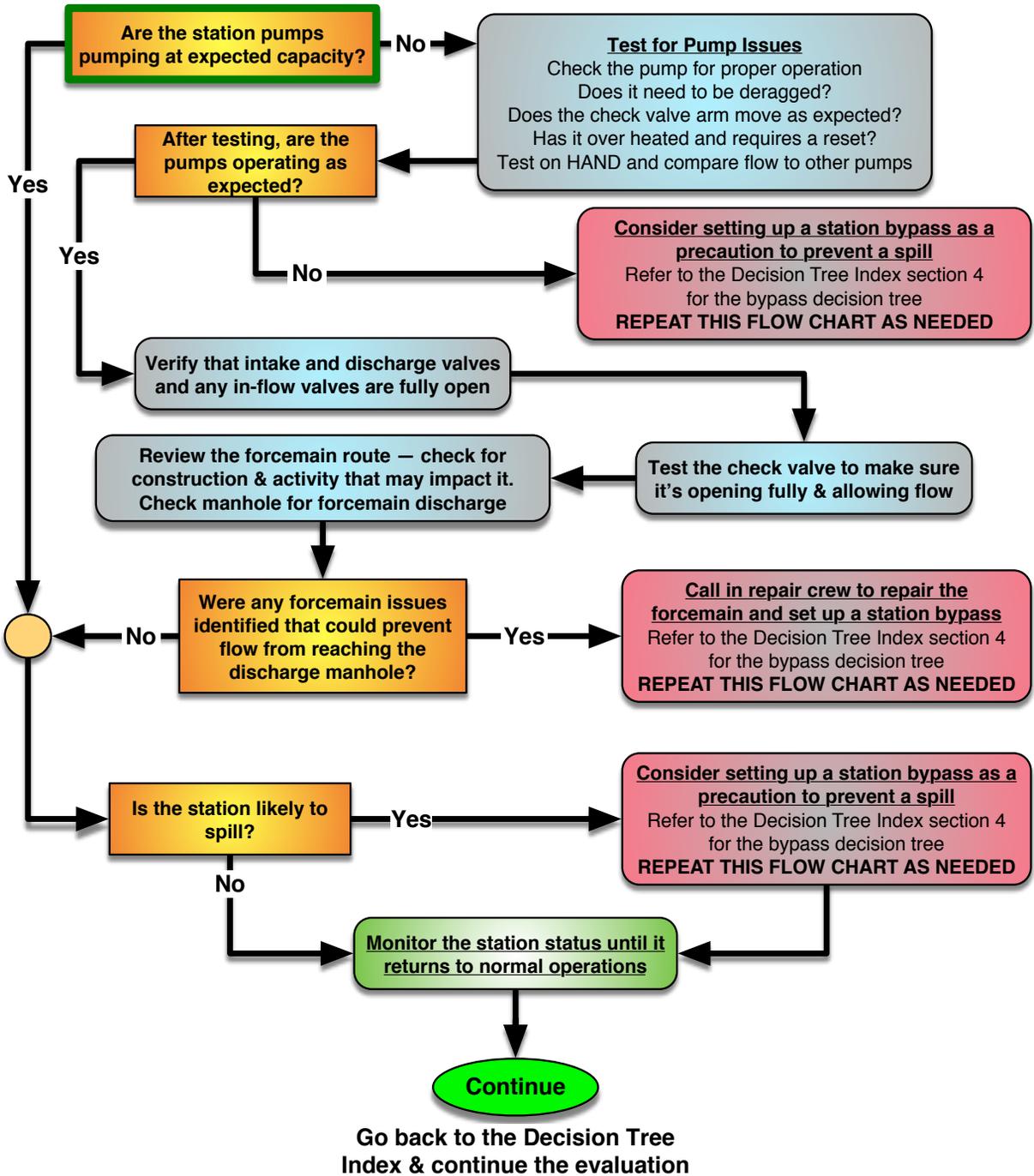
Go back to the Decision Tree Index & continue the evaluation

LEGEND

- ? Initial Question
- X Page-To-Page
- Sequence Merge
- Decision Point
- Task/Direction Item

Overflow – Decision Tree

5 Pump Station Emergency Response Guide Pumps, Valves & Forcemains



LEGEND ? Initial Question X Page-To-Page ● Sequence Merge □ Decision Point ● Task/Direction Item

Spill Notification Procedures

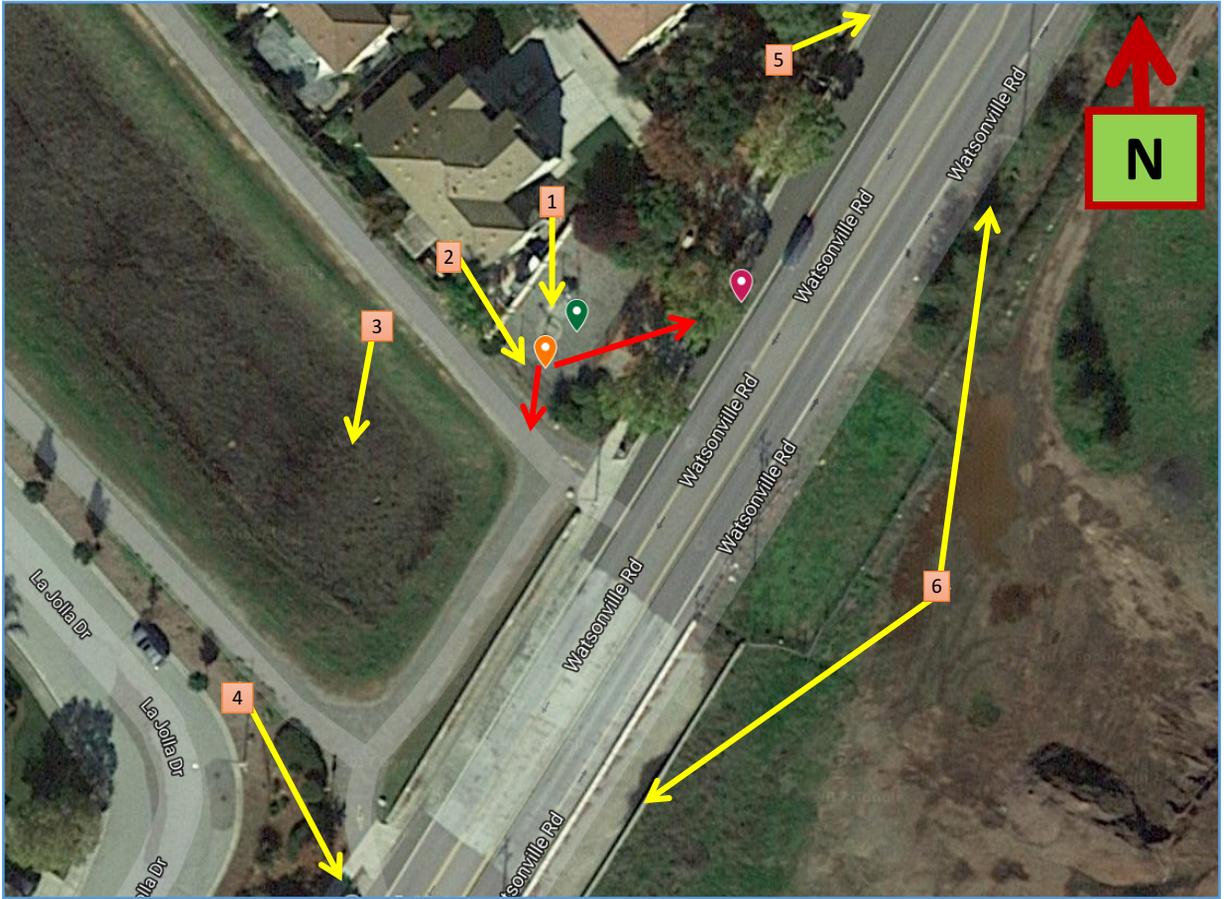
Pump Station W is located in the Jurisdiction of the
Central Coast Regional Water Control Board (#3)

Key SSO Reporting Matrix

Reporting Instructions <i>See City of Morgan Hill OERP for detailed information.</i>				
Deadline	Category 1	Category 2	Category 3	Private Lateral
Within 2 hours after awareness of SSO	If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 If SSO reaches the Anderson Reservoir, notify the Santa Clara Valley Water District	-	-	-
Immediately (within 2 hours)	If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact ABAG Plan Corporation.			
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	Consider reporting via CIWQS
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-
NOTE: All Fish Kills require immediate notification of the Department of Fish & Game through OES				

**See the Contact Information Section for contact information
Page 32**

Spill Containment

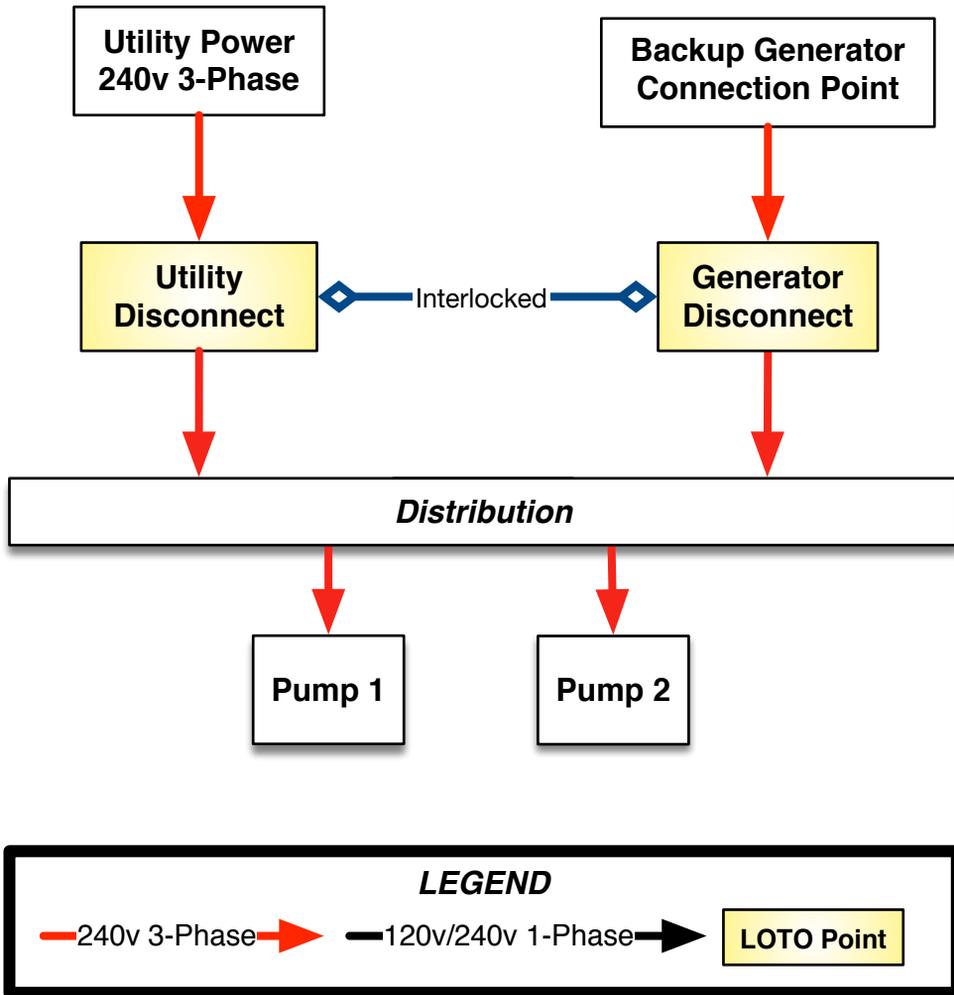


Potential SSO Impact on State Water

	Type	Position from low point	Containment
1	Pump station	20'	Sandbags or booms to create a holding area around the low manhole and/or a vacuum truck to collect the spill.
2	Low point	-	
3	Seasonal marsh area	~33' NW	Use sandbags or booms to create a holding area on the bike path to keep the spill from reaching the marsh area. Use a vacuum truck to collect the spill.
4	Storm drain inlet	~195' SW	Sandbags or booms to create a barrier area around the drain inlet and/or a vacuum truck to collect the spill.
5	Storm drain inlet	~230' NE	
6	Edge of road connected to seasonal marsh area	~110' SE	Use sandbags or booms to create a barrier to keep the spill on the north side of the road and away from the marsh area. Use a vacuum truck to collect the spill.

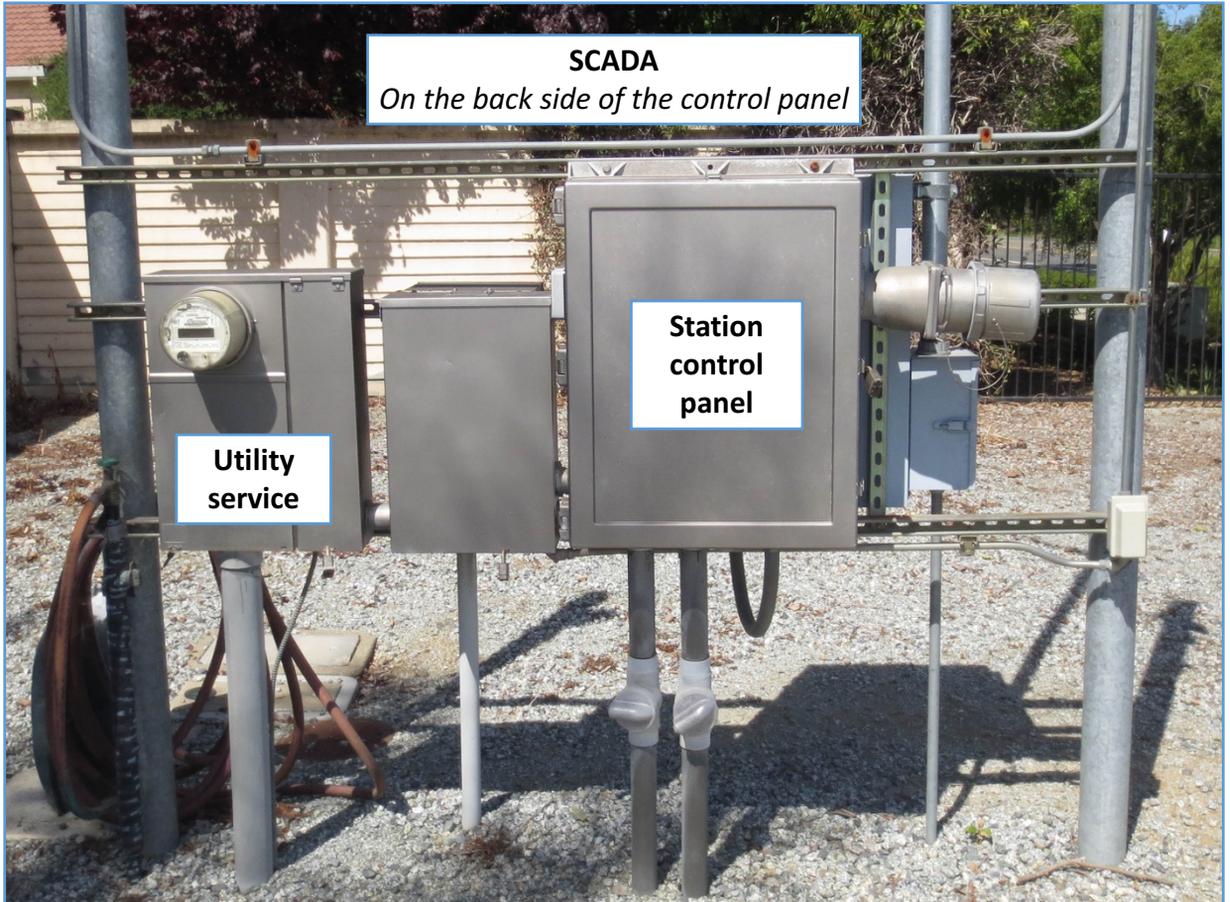
Expected flow direction from system low point (RED ARROWS ON MAP)

Pump Station Power Map



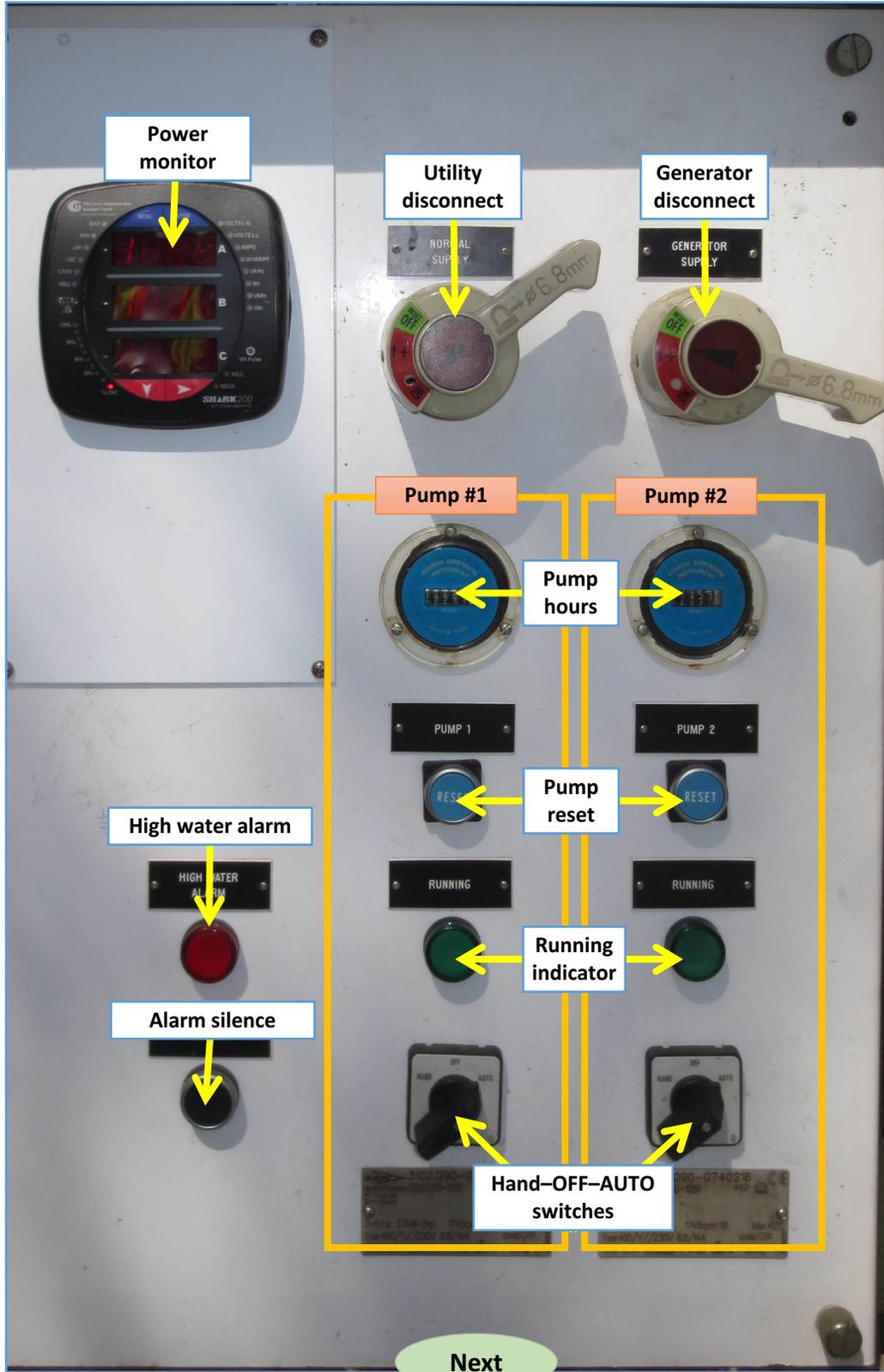
Done

Pump Station Control System

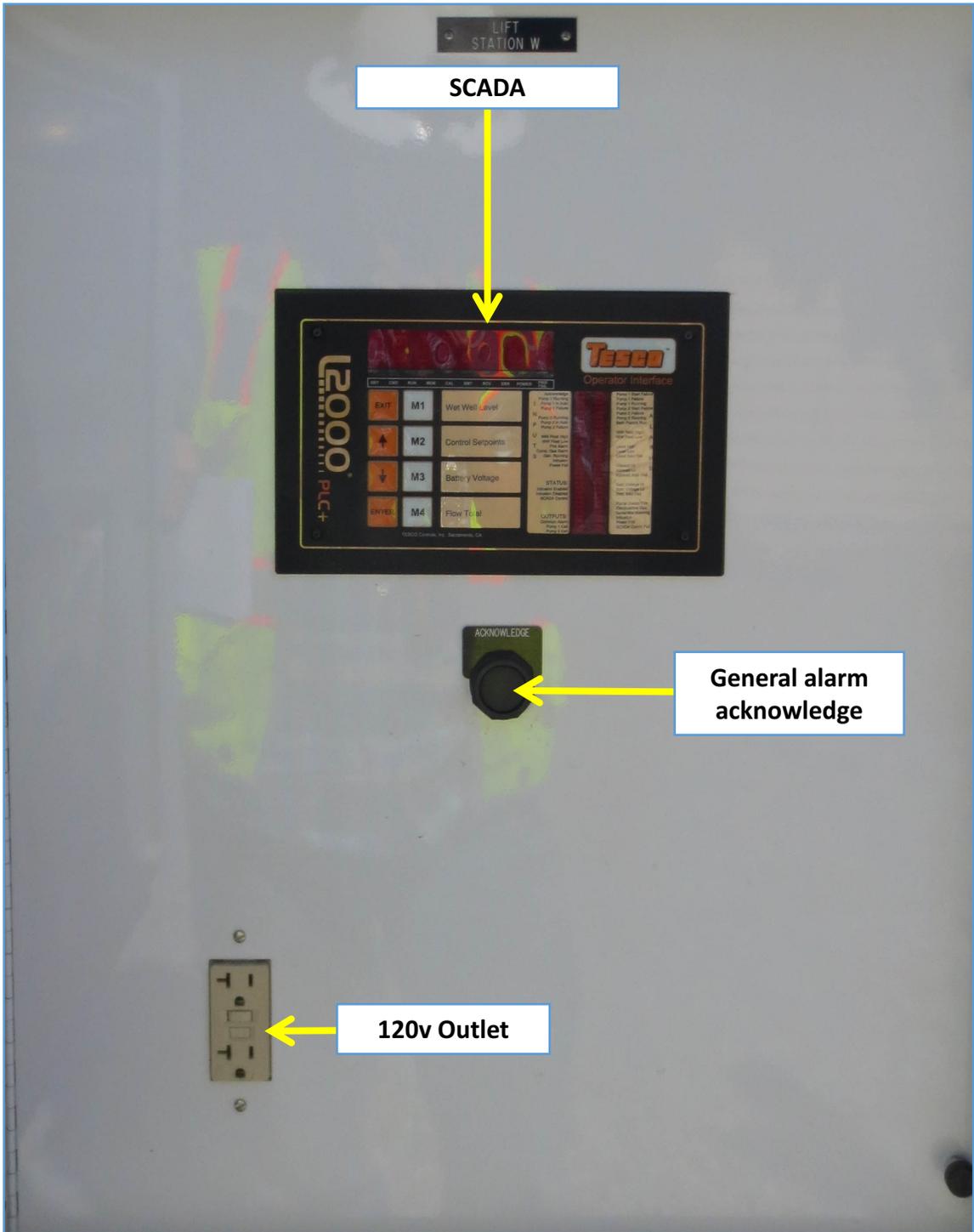


Next

Pump Station Control System



Pump Station Control System



Done

Lockout/Tagout Procedures

Entire Pump Station Electrical Shutdown

Electrical LOTO Process

The pump station has power provided by the electrical utility and potentially by portable backup generator. Care must be taken to disable all energy sources.

Always test after locking out to verify that it is safe to work.

Summary: pump station LOTO process

1. Reduce the load from the pump station – shut both pumps off
2. Shut down (if attached) and disable the generator
3. Move the utility service & generator disconnects to OFF & install LOTO devices & tags
4. Test for voltage at the work location

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



Next

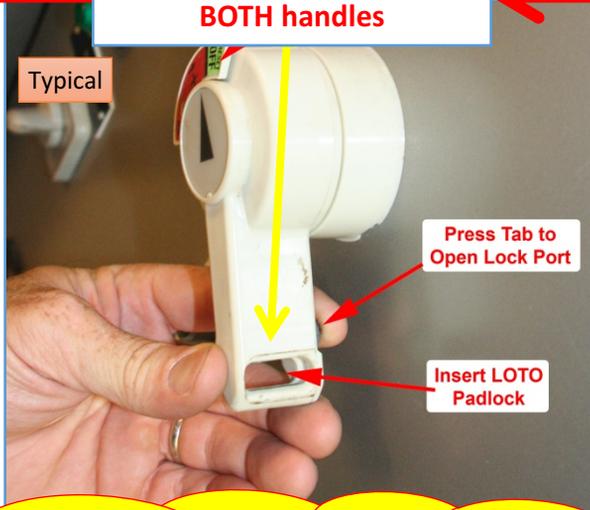
Lockout/Tagout Procedures

If a portable generator is attached, shut it down and disable it from starting

Rotate the utility service disconnect (Normal Supply) and generator disconnect to OFF & install a LOTO devices on BOTH handles



Install a LOTO devices on BOTH handles



Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

Individual Pumps – Electrical LOTO

ALERT!

The W pump station does not have individual disconnects for the pumps. As a result, the entire station must be electrically locked out when working on the pumps.

Follow the Entire Pump Station Electrical Shutdown starting on page 20

Always test for electrical voltage at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

Lockout/Tagout Procedures

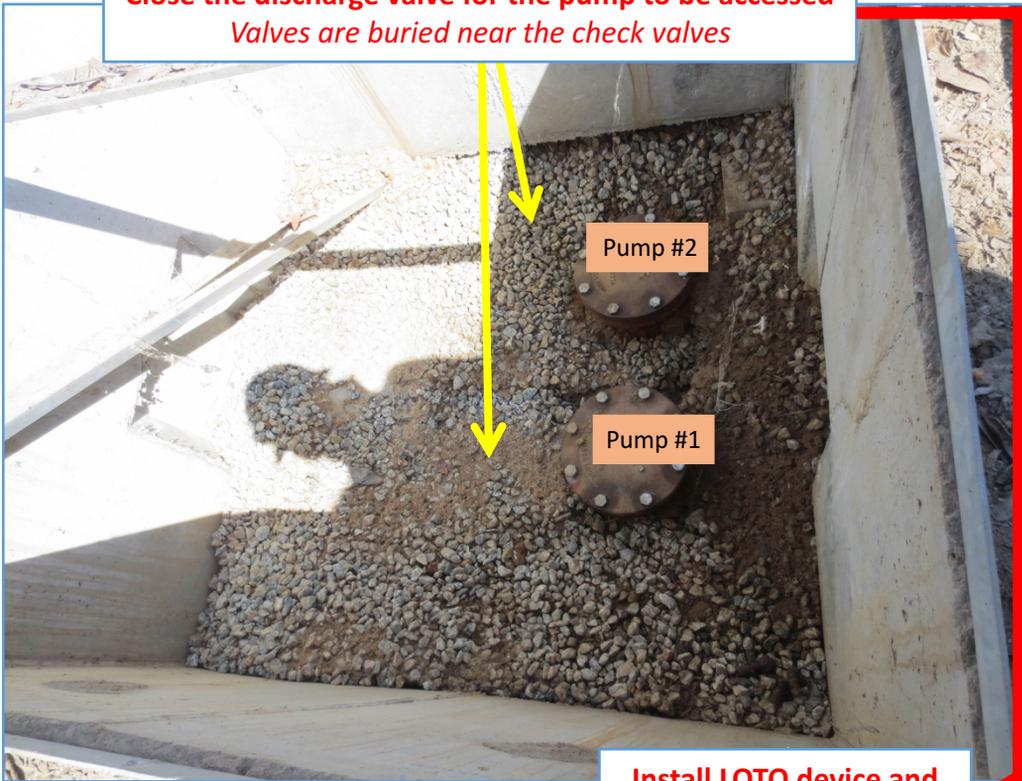
Hydraulic Pressure

Hydraulic LOTO Process

1. Select the pump to work on & follow the Electrical LOTO guide
2. Close the discharge valve for that pump
3. Lock the discharge valve closed and attach a tag

Begin

Close the discharge valve for the pump to be accessed
Valves are buried near the check valves



Install LOTO device and tag onto the closed valve



Always test for electrical voltage & residual pressure at the point of maintenance both before and after locking out the system to verify that it's fully locked out!

Done

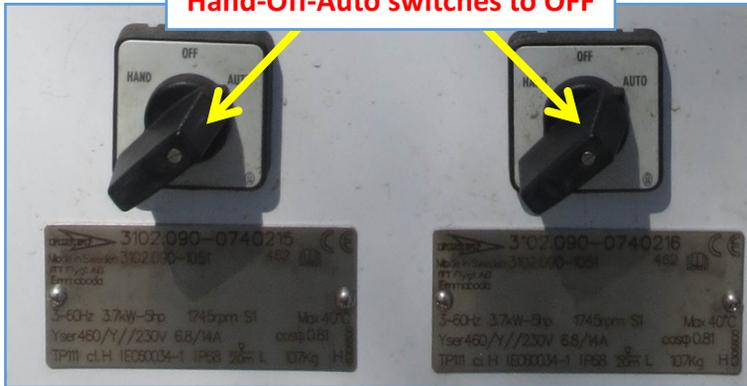
Generator Operation

Portable Generator Connection & Operation

- Reduce the potential load on the station – Shut pumps off
- Shut the utility service disconnect OFF
- Shut the utility disconnect OFF, then turn the generator disconnect ON
- Start the generator & then turn the generator output breaker ON
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



Rotate the utility service disconnect (Normal Supply) OFF



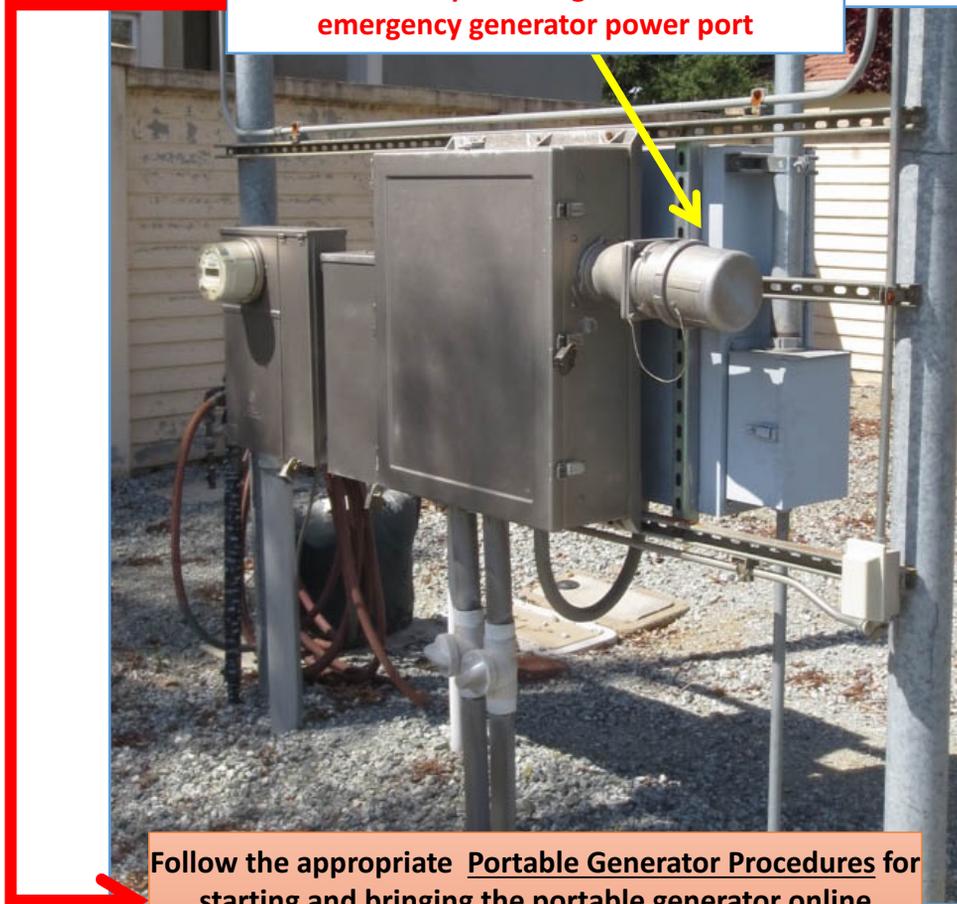
Rotate the generator disconnect ON

Next

Generator Operation

**This station requires 240v 3-phase power
Be sure the generator is appropriately sized and configured for use**

**Connect the portable generator to the
emergency generator power port**



**Follow the appropriate Portable Generator Procedures for
starting and bringing the portable generator online
→ *Once it's operating, continue***

Next

Generator Operation

AS DESIRED: Enable station systems

Rotate BOTH pump Hand-Off-Auto switches to HAND or AUTO as desired



At this point, the station should be running on generator power and completely independent of utility grid power

Done

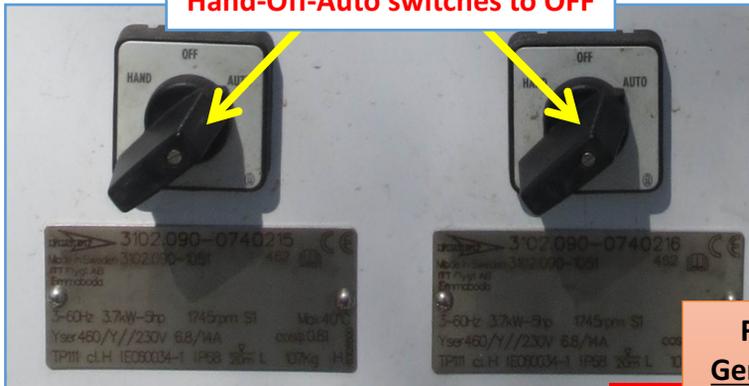
Generator Operation

To return to utility power

- Reduce the potential load on the station – Shut pumps off
- Shut the generator OFF & disconnect the generator
- Shut the generator disconnect OFF, then turn the utility disconnect ON
- Enable the pumps as desired

Begin

**Rotate BOTH pump
Hand-Off-Auto switches to OFF**



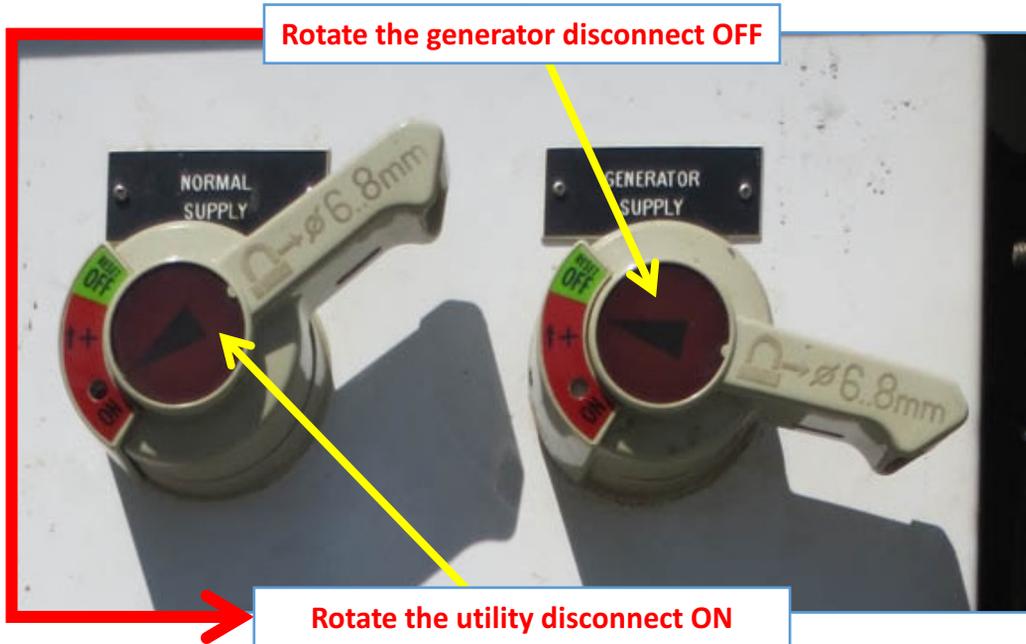
**Follow the appropriate Portable Generator Procedures for shut down and disabling the portable generator
→ *Once it's fully stopped, continue***

**Disconnect the portable generator from
the emergency generator power port**

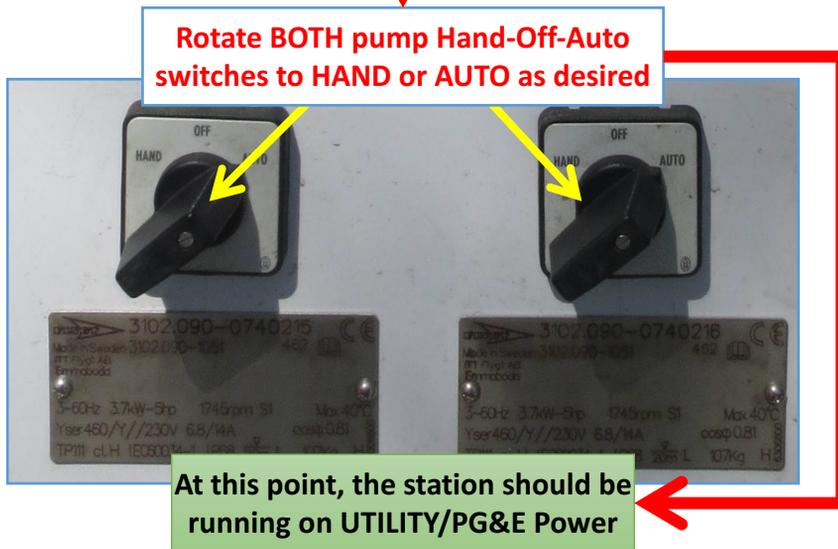


Next

Generator Operation



AS DESIRED: Enable station systems



Done

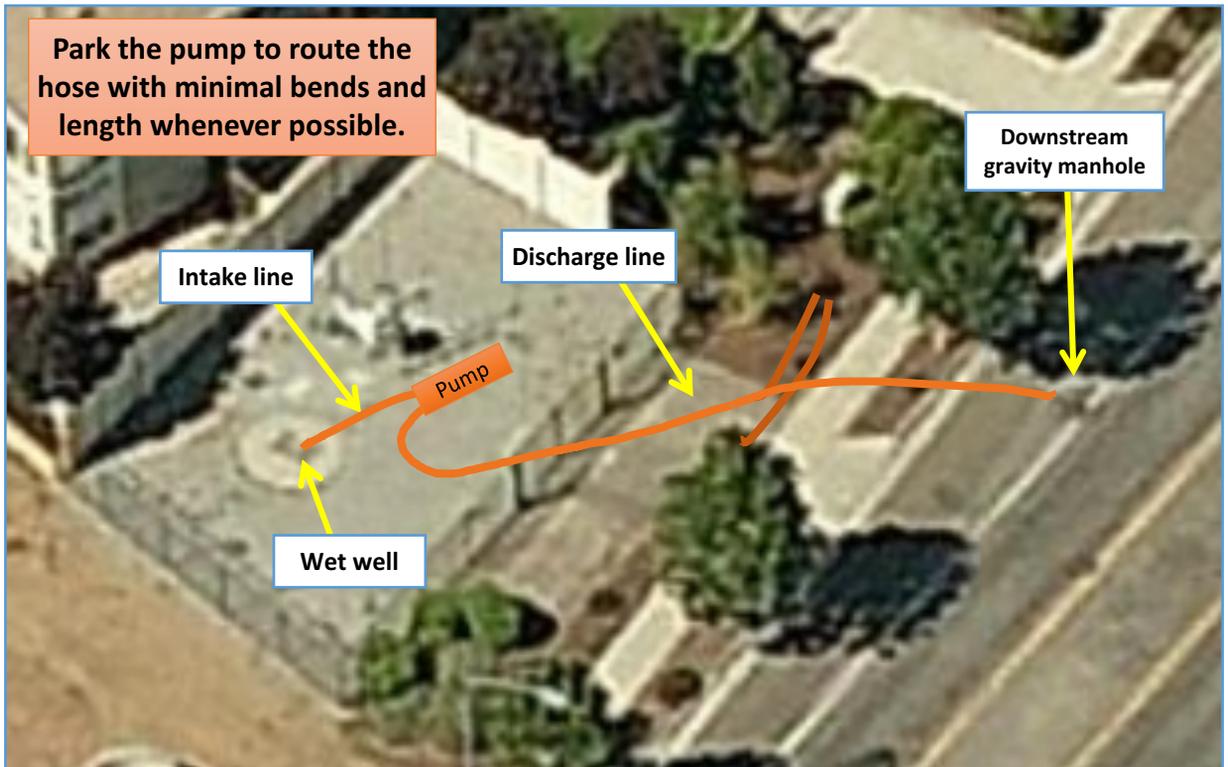
Bypass to Downstream Manhole

Procedure Summary

Configure the station for bypass:

- Park & prepare the trash pump & set up appropriate traffic control devices as needed
- Connect the suction hose to the pump and lower it into the wet well
- Connect a discharge hose to the pump; route the hose to the nearest gravity manhole
- Verify all connections
- Follow the pump's use SOP for operation & begin bypass pumping
- When done
 - Shut the pump down & relieve any residual pressure
 - Disconnect the hoses and clean up
 - Return the station to normal operations

Begin Procedure



Next

Bypass to Downstream Manhole

Park & prepare the trash pump
Select a parking spot to limit hose bending

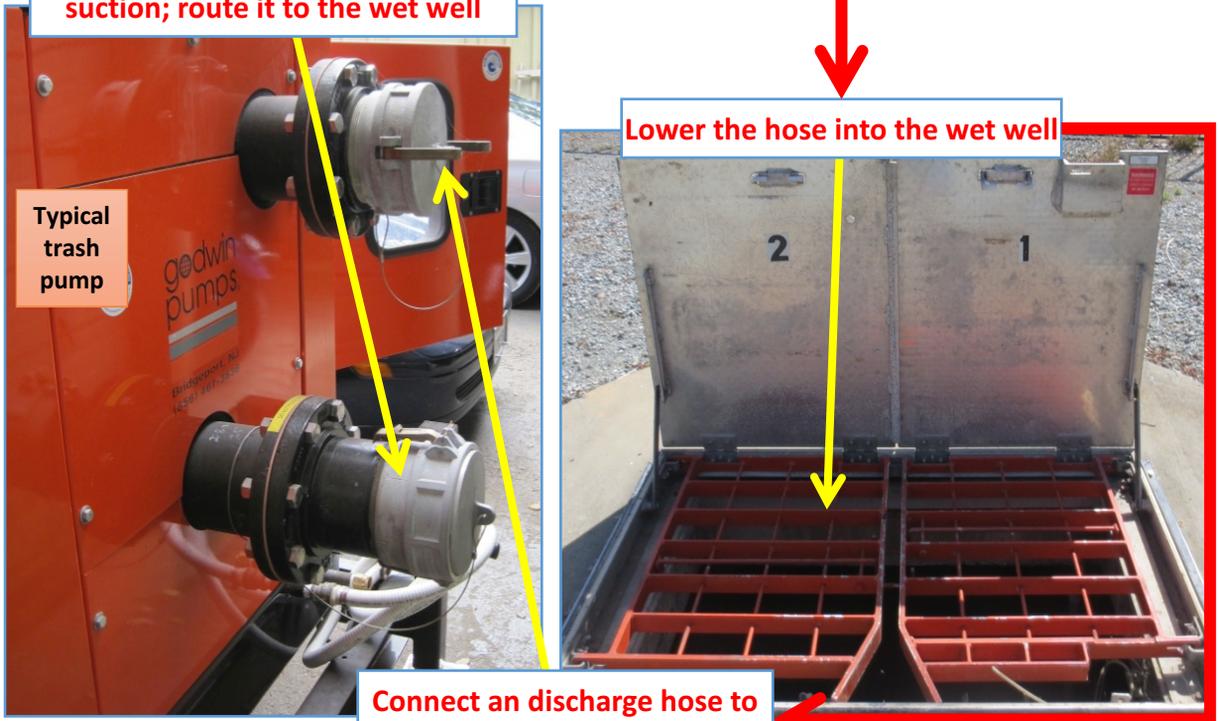
Set up appropriate traffic control devices as needed

Connect an intake hose to the pump suction; route it to the wet well

Lower the hose into the wet well

Connect an discharge hose to the pump discharge port

Next

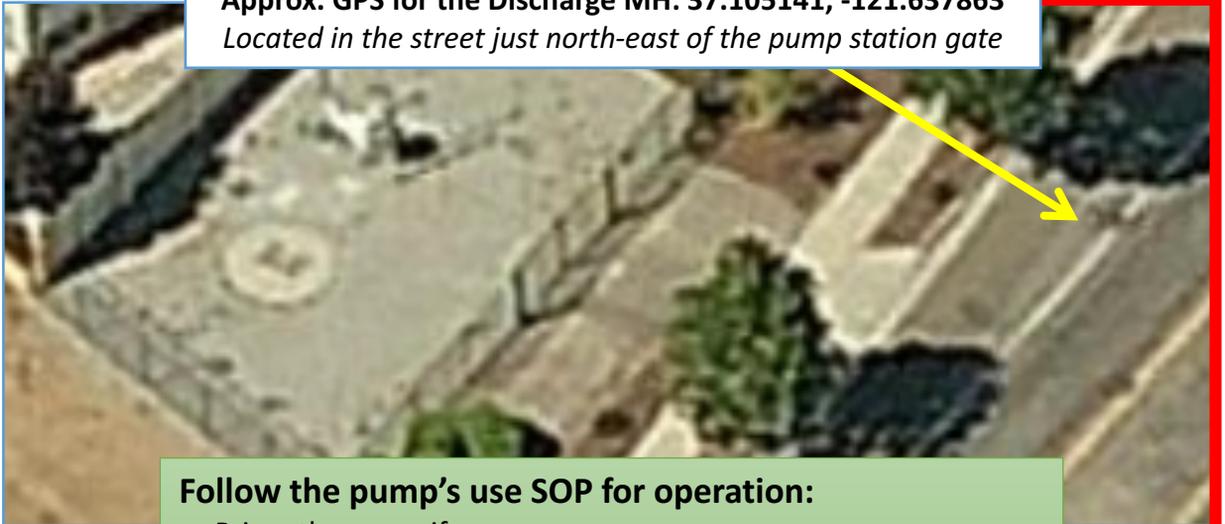


Bypass to Downstream Manhole

Route the discharge to the discharge point

Approx. GPS for the Discharge MH: 37.105141, -121.637863

Located in the street just north-east of the pump station gate



Follow the pump's use SOP for operation:

- Prime the pump if necessary
- Start the pump
- Adjust the pump speed to set the desired pumping rate
- Run the pump as needed to keep the station from overflowing

Pump Shutdown and Clean Up

When finished, be sure to account for any residual pressure in the discharge line.

Follow these steps for shutdown and discharge hose disconnection:

- Shut down the trash pump and allow the engine to stop completely
- Relieve any residual pressure in the discharge line
- Carefully disconnect, drain & stow the discharge line → **Be careful to release any residual pressure and sewage back into the wet well to avoid a spill!**
- Close the downstream manhole
- Carefully disconnect, drain & stow the intake line
- Close the wet well
- Return the station to normal operations as desired
- Clean up and depart

Done

Contact Information

Morgan Hill Internal Contact Information

City of Morgan Hill Public Works

City of Morgan Hill Corporation Yard
100 Edes Court, Morgan Hill, CA 95037

Corp Yard Administration

Contact	Call	Cell
Dan Repp	W-1	921-6408
Tina Rodriquez	Base	831-801-5984
Elizabeth Armendariz	Base	762-9050
Isaiah Saldade (temp)	Base	310-4181
Angela Vynis (temp)	Base	

Program Main & Sewer

Contact	Call	Cell
Tom Neff - Utilities Manager	W-24	427-6199
Rod DeGallery - Senior Utility	W-10	426-1974
Rich Wake - Senior Utility	W-17	807-6833
Kevin Nelson - Water Quality Specialist	W-22	426-0848/209-617-4107
Alfredo Balajadia	W-18	650-796-0918
Johnny Gonzales	W-5	426-1953
Joey Pacheco	W-25	528-4267
Osbaldo Esquivel	W-19	426-0849
Tim Conlon	W-26	390-9788
Richard Guzman	W-6	426-0845
Victor Vasquez	W-14	831-524-4148
Gilberto Bailon	W-13	831-801-7468

Contact Information

Morgan Hill Internal Contact Information

Water

Contact	Call	Cell
Mario Parraz - Utilities Manager	W-16	426-1975
Robert Amaya - Sr Utility Worker	W-3	427-6200
Ken Christensen - Sr Utility	W-4	427-6198
Robert Wilber	W-15	461-0818
Teo Herrera	W-7	639-1203
Gabe Martinez	W-21	717-3547
Robert Romo	W-8	426-0868
Adam Galloway	W-20	426-0908
Danny Russo	W-23	592-6437
Oracio Vasquez	W-27	831-245-7364
Fabian Rios	W-9	831-319-7507
Terry De Leeuw	W-11	408-623-8678
Leo Rocha	W-12	831-331-3710

CSD Parks

Contact	Call	Cell
Dale Dapp - Maintenance Manager	M1	839-0420
Keri Russell		310-4057 (desk)
Vicki Rossi		310-4182 (desk)
Carlos Munoz		705-6396
Juan Zamora	M-4	831-254-2311
Ismael Montes	M-12	309-3861
Sergio Marquez	M-11	426-0891
Daniel Johnson (temp)		426-0881
Victor Alvarez (temp)	M-14	831-707-0961
Bruce Cavanaugh (temp)		
Larry Saenz (temp)		

Contact Information

Morgan Hill Internal Contact Information

Morgan Hill Internal -- CSD Streets

Contact	Call	Cell
Tony Haro - Senior Maint. Worker	M-9	426-1976
Rudy Zamarron	M-10	710-0164
Frank Alvarez	M-5	316-3035
Juan Vazquez	M-8	426-6095

Morgan Hill Internal -- Inspectors

Contact	Call	Cell
Ruben Matuk - PW Inspector	E-6	921-6410
John Pipkin - PW Inspector		612-1680

Outside Vendor Contact Information

Electric Utility

Vendor	Contact Info
PG&E (Pacific Gas & Electric) – For service, outages & emergencies	1-800-743-5000

Rental Pump System Contractors

Vendor	Contact Info
Rain for Rent , 469 El Camino Real, Salinas, CA 93908	831-422-7813
United Rentals , 2860 Monterey Highway, San Jose, CA 95111	408-972-1230
Sunbelt Rentals , 8595 Monterey Road, Gilroy, CA 95020	408-427-0922

Forcemain & Mainline Repairs

Vendor	Contact Info
Maggiora & Ghillotti , 555 Dubois St., San Rafael, CA 94901	415-459-8640
Ghillotti Bros Const. , 525 Jacoby St., San Rafael, CA 94901.	415-454-7011
Northern Underground , 334 Mustang St., San Jose, CA 95123	408-363-8028
Pacific Underground , 1817 Stone Ave, San Jose, CA 95125	408-977-1655

Tanker Trucks Service

Vendor	Contact Info
Roto-Rooter , 356 Matthew Street, Santa Clara, CA 95050	408-987-0464
Greenline Hubera , 1128 Madison Ln. #A, Salinas, CA 93097	831-422-2298
Al's Septic Service , Morgan Hill, CA	408-683-2362

Contact Information

Outside Vendor Contact Information

Gasoline/Diesel Fuel Service

Vendor	Contact Info
Royal Petroleum, Inc., 365 Todd Dr., Santa Rosa, CA 95407	707-540-0054
Golden Gate Petroleum, 1340 Arnold Dr. Suite 231, Martinez, CA 94553	925-228-2222
Pacific States Petro, 220 Hookston Rd., Pleasant Hill, CA 94523	800-679-1700

Critical Agency Contact Information

California Regional Water Quality Board – Central Coast Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	805-549-3147	
Mike Higgins	805-549-3696	805-549-3696
Fax	805-543-0397	
Email	mhiggins@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

California Regional Water Quality Board – San Francisco Bay Region 3

Contact	Office Hours (8a to 5p)	After Hours
Office	510-622-2300	
Mike Chee	510-622-2333	510-622-5633
Fax	510-622-2640	510-622-2640
Email	mchee@waterboards.ca.gov	
Electronic Filing	https://www.r2esmr.net/sso_login2.asp	

Critical Agency Contact Information

Agency	Office Hours (8a to 5p)	After Hours
Office of Emergency Services (OES)	800-852-7550	800-852-7550
California Dept. of Fish & Game	707-944-5500	707-864-4900
Santa Clara County Environmental Health Service (Christana Rodriquez)	408-918-3400	
Santa Clara Valley Water District	800-510-5151	800-510-5151
Morgan Hill Communications	408-779-2101	408-779-2101

System Map